

Feedback reports and Action taken reports for curriculum improvements under SVEC14 Regulations Introduced in the Academic Years 2014-15:

BS&H courses for B. Tech. Programs:

To reduce the redundancy, the feedback reports from faculty members of **Basic Sciences and Humanities (BS&H)** department and the action taken reports are summarized below:

Feedback report from Faculty members of BS&H:

All faculty members of BS&H department, who have taught their courses to students of various B. Tech. Programs, were given their opinion on curriculum improvements. Faculty opined that the following curricular modifications to be incorporated in the next curriculum revision (SVEC14).

1. Merging of first order and higher order differential equations; merging of partial differentiation and applications of derivatives; and introduction of applications of Laplace transform to higher order differential equations in Engineering Mathematics course.
2. Removing of uniform and exponential distributions in Probability and Statistics course
3. Removing of Gauss Jordan method of solving the linear equations, relationship between different types of difference operators; and introduction of Fourier integral in Matrices and Numerical Methods course syllabus.
4. Introduction of concept of supply and capital concepts in the Managerial Economics and Principles of Accountancy syllabus.
5. New open elective course on Banking and Insurance.
6. New open elective course on Cost Accounting and Financial Management.
7. Open elective course on Entrepreneurship for Micro, Small and Medium Enterprises.
8. Removing of the sub-chapter Crystal defects and Acoustics Quieting, the topics Bravais Lattices, Crystal systems, structure of SC, BCC, FCC; and inclusion of special theory of relativity in Engineering Physics course syllabus.
9. Introduction of composites and sensors, lubricants municipal water treatment and desalination of brackish water by electro-dialysis, fuel technology and green chemistry and removing of polymers, surface chemistry and analytical techniques in Engineering Chemistry syllabus.

10. Addition of new experiments: Estimation of ferrous iron by Potentiometry, Synthesis of nano metal-oxide, and Determination of capacity of cation-exchange resin in Engineering Chemistry lab course.
11. Addition of new topics to enhance LSRW skills and new software to support the experiments: Centronix – Phonetics, Let's Talk English, Regional Institute of English South India in English Language Communication Skills Lab course.
12. Introduction of new theory courses on "Business Communication and Presentation Skills" and "Professional Ethics".
13. Introduction of an experiment on determination of rigidity modulus in Engineering physics lab course.
14. Topics on solutions of linear equations by Gauss - Siedel and Gauss Jordan methods may be removed as they are existing in IPE syllabus, the units comprising of Fourier series, Fourier transforms and z-transforms may be merged under the new unit transformation techniques, applications of partial differential equations may be introduced in the course Mathematical Methods.
15. The unit on partial differential equations may be moved to the course Mathematical Methods course, Rouché's theorem and its applications may be removed view of its non/lesser usage in core subjects from the course Special Function and Complex Analysis.

Action taken report:

1. First order and higher order differential equations were merged, partial differentiation and applications of derivatives were merged to remove redundancy (some topics are in IPE syllabus), applications of Laplace transform to higher order differential equations were introduced in "Engineering Mathematics" course.
2. Uniform and exponential distributions were removed as they were not significant compared to normal distribution, statistical quality control, correlation and regression were unified in "Probability and Statistics" course.
3. Gauss Jordan method of solving the linear equations was removed (existing in IPE syllabus), relationship between different types of difference operators was removed (was not a directly application oriented), fourier integral was introduced in the "Matrices and Numerical Methods" syllabus.
4. Concepts on supply and capital concepts were introduced in "Managerial Economics and Principles of Accountancy" syllabus
5. A new course on "Banking and Insurance" was introduced as open elective

6. A new course on "Cost Accounting and Financial Management" was introduced as open elective
7. A new open elective theory course on "Entrepreneurship for Micro, Small and Medium Enterprises" was introduced
8. The sub chapter crystal defects and acoustics quieting were removed and special theory of relativity was introduced, the topics bravais lattices, crystal systems, structure of SC, BCC, FCC were removed due to redundancy, (these topics were introduced by Govt. of AP, IPE syllabus) in "Engineering Physics" course syllabus.
9. Two new concepts, composites and sensors were introduced, the concepts related to lubricants municipal water treatment and desalination of brackish water by electro-dialysis were introduced, fuel technology and green chemistry were introduced, polymers, surface chemistry and analytical techniques were removed due to redundancy (existing in IPE Syllabus) in "Engineering Chemistry" syllabus.
10. Three new experiments on estimation of ferrous iron by potentiometry, synthesis of nano metal-oxide and determination of capacity of cation-exchange resin were introduced in "Engineering Chemistry Lab" course.
11. Six new topics were added to enhance/improve LSRW skills and new Software was added to support the experiments on Centronix – Phonetics, Let's Talk English, Regional Institute of English South India in "English Language Communication Skills Lab" course.
12. Theory courses on "Business Communication and Presentation Skills" and "Professional Ethics" were introduced
13. Determination of rigidity modulus was introduced in "Engineering physics Lab" course.
14. Topics on solutions of linear equations by Gauss - Siedel and Gauss Jordan methods have been removed, the units comprising of Fourier series, Fourier transforms and z-transforms were merged under the new unit transformation techniques, applications of partial differential equations were introduced in the course Mathematical Methods.
15. The unit on partial differential equations were moved to the course Mathematical Methods course, Rouche's theorem and its applications were removed from the course Special Function and Complex Analysis.

B. Tech. in Civil Engineering

Feedback report from Alumni:

The Department of Civil Engineering was started in the academic year 2009-10 and the first batch of B.Tech. (Civil Engineering) students were passed out in the academic year 2012-13. Hence, the feedback from the alumni is not applicable.

Action Taken:

Not applicable.

Feedback report from Students:

Feedback on curriculum was obtained from the 80% of students from batches 2012-13 and 2013-14. Students wanted to have the following courses to be introduced in the next revision of curriculum (SVEC14 Regulations).

1. Lab course on Computer-Aided Engineering Drawing
2. Theory course on Infrastructure Development and Management
3. Theory course on Transportation Management
4. Theory course on Solid Waste Management
5. Theory courses on "Water Supply Engineering" and "Waste Water Technology" instead of Environmental Engineering-I and II in SVEC10.
6. Theory course on "Geospatial Technologies" in place of Remote Sensing and GIS in SVEC10.
7. Separate lab courses on "Remote Sensing and Geographical Information Systems Lab" and "Computer Aided Design and Detailing Lab" in place of GIS and Computer Aided Design and Detailing Lab in SVEC10.
8. Theory course on "Prestressed Concrete"

Action taken report:

Based on the opinion of students, the following changes were incorporated in the curriculum of SVEC14 Regulations.

1. A common lab course on "Computer-Aided Engineering Drawing" was introduced in place of Engineering Drawing in I B.Tech.
2. Infrastructure Development and Management, a new elective course was introduced.
3. Transportation Management, a new elective course was introduced.
4. Solid Waste Management, a new elective course was introduced.

5. Theory courses on "Water Supply Engineering" and "Waste Water Technology" were introduced in SVEC14 in place of Environmental Engineering-I and II in SVEC10.
6. A theory course on "Geospatial Technologies" was introduced in SVEC14 in place of Remote Sensing and GIS in SVEC10.
7. Separate lab courses on "Remote Sensing and Geographical Information Systems Lab" and "Computer Aided Design and Detailing Lab" were introduced in SVEC14 in place of GIS and Computer Aided Design and Detailing Lab in SVEC10.
8. A theory course on "Prestressed Concrete" was introduced as program core in SVEC14.

Feedback report from Faculty Members:

All faculty members, who have taught courses during the academic years 2012-13 and 2013-14, were given their opinion on curriculum improvements. Faculty opined that the following curricular modifications to be incorporated in the next curriculum revision (SVEC14 Regulations).

1. Inclusion of lab course on Computer-Aided Engineering Drawing in place of Engineering Drawing
2. Addition of single theory course on "Steel Structures" in place of Steel Structures-I and II
3. Addition of separate lab courses on "Remote Sensing and Geographical Information Systems Lab" and "Computer Aided Design and Detailing Lab" in place of GIS and Computer Aided Design and Detailing Lab.
4. Inclusion of theory course on "Prestressed Concrete" as program core
5. Inclusion of indeterminate beams topic in the Structural Analysis – I course
6. Removing the topics T and L beams, shear, torsion and bond topics in Reinforced Cement Concrete Structures-I course.
7. Removing pile foundations, inclusion of design of silos and design of chimneys in Reinforced Cement Concrete Structures-II course.
8. Addition of experiments on water content and specific gravity in the course Geotechnical Engineering Lab
9. Inclusion of new chapter as Erosion and Reservoir sedimentation in the course Engineering Hydrology
10. Removing the experiments on Determination of loss of head due to sudden expansion, Determination of coefficient of discharge for an external mouth piece

by variable head method, Calibration of triangular notch in Fluid Mechanics and Hydraulics Lab course.

11. Renaming the theory course "Estimation and Quantity Surveying" as "Estimation, Costing and Valuation".
12. Introduction of an elective course on "Infrastructure Development and Management"
13. Addition of two separate theory courses on "Transportation Engineering-I" and "Transportation Engineering-II" in place of Transportation Engineering in SVEC10.
14. Inclusion of bituminous mix design and concrete mix design in Highway Lab course
15. Introduction of an elective course on "Transportation Management"
16. Introduction of two theory courses on "Water Supply Engineering" and "Wastewater Technology" in place of Environmental Engineering-I and II in SVEC10.
17. Removing of E-Coli test and inclusion of test on sulphates in Environmental Engineering Lab course
18. Inclusion of a new theory course on Solid Waste Management
19. Inclusion of a theory course on "Geospatial Technologies" in place of Remote Sensing and GIS in SVEC10.
20. Addition of lab courses on "Remote Sensing and Geographical Information Systems Lab" and "Computer Aided Design and Detailing Lab" in place of GIS and Computer Aided Design and Detailing Lab in SVEC10.

Action taken report:

Based on the feedback obtained from faculty, following changes were incorporated in the curriculum of SVEC14 Regulations.

1. A lab course on "Computer-Aided Engineering Drawing" was introduced in place of a lab course on "Engineering Drawing" in SVEC10.
2. A single theory course on "Steel Structures" was introduced in place of Steel Structures-I and II as in SVEC10
3. Lab courses on "Remote Sensing and Geographical Information Systems Lab" and "Computer Aided Design and Detailing Lab" were introduced in place of GIS and Computer Aided Design and Detailing Lab in SVEC10
4. A theory course on "Prestressed Concrete" was introduced as program core
5. Included the indeterminate beams topic in the "Structural Analysis – I" course

6. Removed the topics T and L beams, shear, torsion and bond topics in "Reinforced Cement Concrete Structures-I" course.
7. Removed the topics on pile foundations included the topics on design of silos and design of chimneys in the course "Reinforced Cement Concrete Structures-II"
8. Added of experiments on water content and specific gravity in the course "Geotechnical Engineering Lab"
9. Included the new chapter as erosion and reservoir sedimentation in the course "Engineering Hydrology"
10. Removed the experiments on determination of loss of head due to sudden expansion, determination of coefficient of discharge for an external mouth piece by variable head method, calibration of triangular notch in "Fluid Mechanics & Hydraulics Lab" course.
11. A theory course on "Estimation, Costing and Valuation" was renamed in place of Estimation and Quantity Surveying in SVEC10.
12. An elective course on "Infrastructure Development and Management" was introduced
13. Theory courses on "Transportation Engineering-I" and "Transportation Engineering-II" were introduced in place of "Transportation Engineering" in SVEC10
14. Included bituminous mix design and concrete mix design in "Highway Lab" course
15. An elective course on "Transportation Management" was introduced
16. Theory courses on "Water Supply Engineering" and "Wastewater Technology" were introduced in place of "Environmental Engineering-I and II" in SVEC10
17. Removed E-Coli test and included sulphates in "Environmental Engineering Lab" course
18. Included a new theory course on "Solid Waste Management"
19. Included a theory course on "Geospatial Technologies" in place of "Remote Sensing and GIS" in SVEC10.
20. Added a lab courses on "Remote Sensing and Geographical Information Systems Lab" and "Computer Aided Design and Detailing Lab" in place of GIS and Computer Aided Design and Detailing Lab in SVEC10.

B. Tech. in Electrical and Electronics Engineering

Feedback report from Alumni:

Feedback was taken from 2010-2011 and 2011-12 passed out batch during the academic years 2012-2013 and 2013-14 respectively. About 40% of them had responded to the survey. Their feedback was summarized and is as follows:

1. Courses like Signals and systems, 8085 microprocessor could be included so as to enable the students to write competitive exams like GATE, IES and Written tests conducted by various companies.
2. Courses like Power Quality, Smart Grid technologies and PIC Microcontrollers could be included, so as to enable the students to succeed in the interviews for jobs in core companies.
3. Courses on analog electronics should be introduced, so as to enable the students to do well in competitive exams.
4. Some courses could be introduced to develop entrepreneurial skills, awareness and exposure on various banking, insurance and financial accounting.
5. A laboratory course related to drives should be introduced which would give a deep insight on the drives that would help students in industry.

Action taken report:

1. New courses Signals and Networks, Power Quality and Smart Grid technologies were introduced into the curriculum in appropriate semesters of the program.
2. A new course Advanced Microcontrollers was included in the curriculum. Also an in-depth coverage on 8085 processor was made in the course "Computer Architecture and Organization" to enable the students to write competitive exams.
3. New courses "Analog Electronic circuits" and its associated laboratory "Analog Electronics and IC lab" were introduced.
4. New courses "Banking and Insurance", "Cost Accounting and Financial Management", "Entrepreneurship for Micro, Small and Medium Enterprises" were introduced into the curriculum to develop entrepreneurial skills, awareness on various banking and insurance related fields.
5. New course "Power Electronics and Drives Lab" was introduced as a lab course in the curriculum.

Feedback report from Students:

An exit survey was conducted. The feedback of the students of 2012-2013 and 2013-14 passed out batches during the academic years 2012-13 and 2013-14 respectively and were summarized as detailed below. About 80% of the students had participated in the exit survey.

1. Courses on Analog Electronics should be introduced, so as to enable the students to do well in competitive exams and hardware oriented projects.
2. A course on Machine Design using computers should be introduced, so that the students can take-up and work on design projects in industries.
3. Courses on Computer domain like Computer Networks shall be taught as these courses would help students in facing interviews.
4. Some courses on renewable energy conversion and their applications could be introduced in the curriculum.
5. Student's presentation and communication skills have to be improved further to make them employable through some mandatory courses.

Action taken report:

1. New courses "Analog Electronic circuits" and its associated laboratory "Analog Electronics and IC lab" were introduced.
2. Emphasis was given on design and problem solving skills exclusively through a new course "Computer Aided Electrical Machine Design". Possible design aspects among the other courses were stressed in respective theory and lab courses appropriately.
3. A new course "Computer Networks" was introduced in the curriculum and was made as an elective course.
4. A new course on Solar and Wind Energy Conversion Systems was introduced as an elective course.
5. To improve the communication and presentation skills, a new course "Business Communication and Presentation Skills" was introduced.

Feedback report from Faculty members:

Feedback report was taken from all the Faculty members who taught the courses of the program. Their suggestions were consolidated as detailed below:

1. Topics like Renewable Energy Sources shall be taught as the electrical energy generation through these sources is gaining importance now-a-days.
2. The concepts of energy auditing could be added somewhere in the curriculum.

3. A full course on Fluid Mechanics and Hydraulic machines is not required and could be recalled.
4. The concepts of the FACTS and HVDC shall be made mandatory as these were in use in power industry.

Action taken report:

1. Concepts of Renewable Energy Systems were incorporated in the course Generation of Electric Power.
2. The concepts of energy auditing were added in the course "Utilization of Electrical Energy". The concepts energy efficient motors and smart meters were also included.
3. Fluid Mechanics and Hydraulic machines course was condensed to a required extent and was included in the appropriate course "Generation of Electric Power".
4. A new course merging the concepts of HVDC Transmission and FACTS was introduced as "HVDC Transmission and FACTS".

B. Tech. in Mechanical Engineering

Feedback report from Alumni:

Not applicable as the First Batch passed out in the Academic year 2014- 15.

Action taken report:

Not applicable.

Feedback report from Students:

Not applicable as the First Batch passed out in the Academic year 2014-15.

Action taken report:

Not applicable

Feedback report from Faculty members:

The feedback from the entire faculty who taught the courses of the program was collected in the academic year 2012-13 and 2013-14 and summarized as follows.

1. Suggested to introduce latest trends of Mechanical Engineering like computer based Mechanical software tools.
2. Suggested to incorporate soft skills oriented courses to improve the employability.

3. Suggested to introduce industry relevant courses in core areas of Mechanical Engineering.
4. Suggested to include open electives to make engineering learning processes much broader than restricted to core subjects of Mechanical Engineering.
5. Suggested to incorporate courses related to societal and environmental context.
6. Suggested to introduce courses related to ethical principles and responsibilities for engineering practices.
7. Suggested following improvements in the existing syllabus of various courses.
 - Material Science and Metallurgy – Introduce the topic 'Composite Materials'.
 - Thermodynamics: Introduce the topic 'Gas power cycles' in Thermodynamics and remove in the course Thermal Engineering – I.
 - Thermal Engineering - I: Introduce topic 'Non-conventional Engines'.

Action taken report:

1. Computer oriented Lab courses were introduced on latest trends of Mechanical Engineering such as Computer-Aided Engineering Drawing, Computer Aided Machine Drawing Lab and Manufacturing Systems Simulation Lab in SVEC-14 curriculum.
2. Introduced a course titled "Business Communication and Presentation Skills" in SVEC-14 curriculum.
3. Introduced industry relevant courses such as Advanced Welding Technology, Product Design, Advanced Casting Technology, Quality Management and Reliability, Project Management.
4. Introduced open electives such as Entrepreneurship for Micro, Small and Medium Enterprises, Planning for Sustainable Development, Artificial Intelligence and Robotics, Global Strategy and Technology, Micro electro mechanical Systems for the benefit of the students.
5. Introduced courses entitled Disaster Mitigation and Management and Environmental Pollution and Control which related to societal and environmental context.
6. Courses entitled Professional Ethics, Intellectual Property Rights and Management are introduced, which are related to ethical principles and responsibilities for engineering practices.
7. All the suggestions given by the teachers for the improvement of the existing syllabus were incorporated.

B. Tech. in Electronics and Communication Engineering

Feedback report from Alumni:

Feedback was taken from 2010-11 and 2011-12 passed out batch during the academic years 2012-13 and 2013-14. About 40% of them responded to our survey in each year. Their feedback is summarized as follows:

1. To meet the industrial requirements, advanced knowledge in latest technologies has to be gained through the introduction of new courses in digital domain.
2. Experiments on Design concepts have to be included in the laboratories.
3. In order to work efficiently in industries, courses like Control systems and Network Analysis have to be strengthened.
4. To sustain in competitive job market today, graduates should have entrepreneurial skills. So, a course on Entrepreneurship can be introduced in the curriculum.
5. To focus on employability in banking sector as it is growing rapidly, courses on Banking and Insurance, Cost Accounting and Financial Management can be introduced as open electives in the curriculum.

Action taken report:

1. New courses like Analog IC Design and Mixed IC Design in digital domain were included to fulfill the industrial needs.
2. In almost all the Laboratories, Design concepts were included to improve the standards.
3. Topics like Mechanical and Electrical Systems, AC Servo Motor, Integral and Derivative Controllers, Difficulties in formation of rough table, Applications of R-H Criterion, Relative Stability Analysis and Compensation Techniques were included in control systems. Two Port Networks and Filters also were added in Network Analysis to strengthen the course.
4. Courses like Entrepreneurship for Micro, Small and Medium Enterprises, Banking and Insurance & Cost Accounting and Financial Management were included in the curriculum.

Feedback report from Students:

The students of 2012-13 and 2013-14 Passed out batch were asked to give feedback for the curriculum improvement. About 80% of them responded to our survey in each year. Their feedback is summarized as follows:

1. In competitive examinations point of view, chapters on Two Port Networks and Filters have to be included in Network Analysis.
2. In Electronic Measurements and Instrumentation, more importance can be given to measurements related to real-time applications.
3. Latest topics such as sensors, solar cells and measures to control pollution have to be introduced in physics or chemistry.

Action taken report:

1. Network analysis syllabus was strengthened. New courses were introduced to improve the standard of the program.
2. More number of real-time applications was included in Electronic Measurements and Instrumentation.
3. The latest topics like Electrochemical Sensors, Composites, Numerical problems on measurement of hardness of water, Phosphoric acid fuel cells, proton exchange membrane fuel cells, Solid oxide fuel cells, Fuel Technology, Green Chemistry and Green Engineering , Special theory of relativity , Black body radiation, Wein's law, Rayleigh-Jeans law, Planck's law and solar cell were included. in physics and chemistry.

Feedback report from Faculty members:

Feedback report was taken from all the Faculty members who taught the courses of the program during 2012-13 and 2013-14. The following suggestions were considered for improvement in curriculum.

1. Course Contents in subjects like DICA and VLSI Design should be logically arranged.
2. Due to strong demand in Electronic industry especially in digital domain, new courses
in VLSI have to be introduced.
3. Open Electives have to be introduced

Action taken report:

1. In few subjects, Course title and syllabi were better correlated and the contents were
Reorganized logically. The standard of some of the courses is further improved.
2. New courses in digital domain like Analog IC Design, Mixed IC Design, Digital CMOS Design were introduced.
3. Open electives were introduced.

B. Tech. in Computer Science and Engineering

Feedback report from Alumni:

Feedback was taken from 2010-2011 and 2011-2012 passed out students during the academic year 2012-2013 and 2013-2014 respectively. About 41% of the Alumni responded to the request in each year. The summary of the feedback is as follows:

- Course which improves the skills of the students towards simulation of a problem can be introduced
- Practice sessions on data mining concepts were essential
- Courses like computer forensics, Engineering systems analysis and design, semantic web, machine learning, big data were needed
- Subjects like enterprise applications, mainframe systems can be eliminated
- Communication Skills of students need to be enhanced
- Courses from various fields can be introduced to provide diversified opportunities for the students

Action taken report:

Based on the feedback received from Alumni, the following actions were taken and were reflected in SVEC14 regulations:

- Simulation and modeling subject was introduced to improve the skills of the students towards simulation of a problem
- Data warehousing and data mining lab was introduced.
- Computer Forensics, semantic web, machine learning and big data were introduced as core courses and engineering systems analysis and design was introduced as open elective.
- Courses like web mining, parallel processing, high speed networks, enterprise applications and mainframe systems were removed from the curriculum to include new courses like big data, machine learning.
- Six new topics were added to enhance/improve LSRW skills. New Software were added to support the experiments such as Centronix – Phonetics, Let's Talk English, Regional Institute of English South India in English Language Communication Skills Lab
- Courses like Banking and Insurance, Cost Accounting and Financial Management and Entrepreneurship for Micro, Small and Medium Enterprises were introduced to provide opportunities for students in various fields

Feedback report from Students:

Feedback was taken from the students who were passing out during the academic years, 2012-2013 and 2013-2014. About 82% of the Students responded to the request. The summary of the feedback is as follows:

- Presentation and communication skills of students have to be enhanced
- More advanced topics in computer architecture can be included
- Most of the student opinion is to include new courses like Machine Learning, big data, information retrieval system as they were current trends in the industry.
- Practice in data mining concepts would help students to understand the concepts in a better way
- Subjects like distributed systems, semantic web can be introduced
- Redundancy of some topics such as Partial differentiation and applications of derivatives are merged to remove redundancy, Solutions of linear equations by Gauss - Siedel and Gauss Jordan methods from various subjects like Engineering Mathematics, Mathematical methods respectively appear with IPE syllabus. Redundancy can be eliminated.

Action taken report:

Based on the feedback received from students, the following actions were taken and were reflected in SVEC14 regulations:

- Business Communication and Presentation Skills subject was introduced to enhance the presentation and communication skills of students
- As it was not possible to include in Computer Architecture course, new course titled as "Advanced Computer Architecture" was introduced as an elective.
- Based on the feedback of the students related to the introduction of new courses, courses like Machine learning, big data, information retrieval system were introduced as electives and design patterns was introduced as core course
- Data warehousing and Data Mining lab was included to make students practice on the related concepts.
- Distributed systems and semantic web courses were introduced as elective courses
- Partial differentiation and applications of derivatives are merged from Engineering Mathematics, Solutions of linear equations by Gauss - Siedel and Gauss Jordan methods was removed from Mathematical methods, The topics Bravais Lattices, Crystal systems, structure of SC, BCC, FCC was removed from Engineering Physics to eliminate redundancy with IPE Course.

Feedback report from Faculty members:

Feedback was taken from all the faculty members who taught the courses of the program during the academic years 2012-2013 and 2013-2014. The following were the suggestions made by the faculty which were considered for the improvement of the curriculum:

- Problem solving and computer programming lab need to be strengthened to enhance the programming skills of the students which improves employability skills in them
- Exercises based on Latex were to be removed for 1st year students as it is very advanced and it could be included for the next semesters
- Basics of data structures were overlapping with problem solving and computer programming
- Object oriented programming syllabus need to be modified
- Strong foundation of Unix was required
- Case studies in object oriented analysis and design lab need to be enhanced
- Mobile computing syllabus needs revision to include more topics like GPRS, synchronization.
- Tools like UniCon could be introduced and case studies can be updated in software architecture syllabus
- Computer graphics and multi-media systems can be divided into two different subjects such that more in-depth discussion can be carried out in the subject
- Subjects like C# and .Net framework can be removed to introduce new courses like machine learning

Action taken report:

Based on the feedback from the faculty, the following actions were taken:

- Two Mini projects were introduced as case studies to enhance the programming skills of the students
- Exercises based on Latex were removed and the remaining exercises were revised.
- Basics of data structures were removed as they were discussed as a part of Problem Solving and Computer programming
- Object oriented programming syllabus was modified and also topics such as applets, JDBC, servlets were introduced

- Basic concepts such as Buffer Cache, Buffer Pool and Headers concepts were introduced in Unix Internals to make fundamentals strong.
- Case studies such as Two Floor Elevator Simulator and Home Appliance Control System in object oriented analysis and design lab were introduced.
- Mobile Computing syllabus was revised with the deletion of topics such as Wireless LAN, MANET and inclusion of topics such as GPRS, Mobile transport layer, mobile synchronization.
- UniCon was introduced in software architecture syllabus and case study like CORBA was replaced with J2EE/EJB.
- Computer graphics and multi-media systems were divided into computer graphics subject and multimedia application development subject to include more related concepts.
- Subjects like C# and .Net framework was removed and machine learning course was introduced

B. Tech. in Electronics and Instrumentation Engineering

Feedback report from Alumni:

The feedback was collected from 2010-11 & 2011-12, passed out students during 2012-13 & 2013-14 academic years. About 40% of the Alumni gave their feedback.

1. Alumni suggested including job oriented courses in theory and lab to enhance employability in core companies.
2. They also suggested including more instrumentation oriented courses.
3. Provide an opportunity to the students to study a course from other disciplines.

Action taken report:

Based on the feedback received from Alumni the following new courses were included in the curriculum to improve the employability of the students in core companies.

1. The new courses offered for enhancing employability in core companies were:
 - Logic and Distributed Control Systems
 - Instrumentation in Process Industries
 - Industrial Automation Lab
2. Courses like Aircraft Instrumentation and Automotive Instrumentation were included to strengthen the instrumentation oriented courses.

3. Courses like Banking and Insurance, Entrepreneurship for Micro, Small & Medium enterprises, Artificial Intelligence and Robotics, Engineering System Analysis and Design, Cyber Security and Laws, are offered under open elective.

Feedback report from Students:

Feedback has been taken from 2012-13 & 2013-14 passed out students. About 85% of the students have given their feedback. The following were the suggestions given by the students.

1. The content of the course Electrical and Electronic Measurements is more.
2. Include applications of mathematical formulas in engineering.
3. Include more courses to improve the communication skills to enhance employability.

Action taken report:

The following changes were made based on the feedback from the students.

1. The course Electrical and Electronic Measurements is reorganized as two courses named Principles of Electrical Measurements and Electronic Instrumentation by adding additional topics to strengthen the core knowledge of the students.
2. Applications of Laplace transforms and partial differential equations were introduced in the courses Engineering Mathematics and Mathematical Methods respectively.
3. A new course Business Communication and Presentation Skills is introduced and new topics were added on LSRW skills in English Language Communication Skills Lab.

Feedback report from Faculty members:

Feedback is taken from all the faculty who taught the subjects of the program and the salient points are:

1. In the course circuit theory, topics related to two port network may be included.
2. The subject Electrical and Electronic Measurements needs to be reorganized.
3. Design the syllabi of Control System with more application oriented topics.
4. Include design component in the subject Electronic Circuit Analysis and Design.
5. Digital sensors need to be included in Transducers in Instrumentation.
6. Remove LabVIEW programming and Introduce P&ID.
7. In the course Microprocessors and Microcontrollers, the topics on 8085 microprocessor may be included as it is present in gate syllabus and other competitive examinations.

Action taken report:

Based on feedback from faculty the following courses were modified.

1. The course Circuit theory is renamed as Network Analysis and topics on solutions for RLC Circuits, Two Port Networks and Filters were included to strengthen the course.
2. The course Electrical and Electronic Measurements is reorganized as two courses named Principles of Electrical Measurements and Electronic Instrumentation by adding additional topics to strengthen the core knowledge of the students.
3. Topics on Mechanical and Electrical Systems, AC Servo Motor, Integral and Derivative Controllers, Difficulties in formation of rough table, Applications of R-H Criterion, Relative Stability Analysis and Compensation Techniques were included in the Control Systems to strengthen the course.
4. Design components were introduced in the course Electronic Circuit Analysis and Design.
5. Digital and other sensors are added in the course Transducers in Instrumentation and renamed as Sensors and Transducers to suit the contents.
6. LabVIEW programming was removed and P&ID experiments were added.
7. 8085 microprocessor is included in the course Computer Architecture and Organization.

B. Tech. in Information Technology**Feedback report from Alumni:**

Feedback was received from 40% of alumni belonging to 2010-11 and 2011-12 passed out batches and they are:

1. Suggested to introduce more industry oriented courses such as Big Data, High Performance Computing and Mobile Application Development.
2. Suggested to carryout students project work at industries through internship.
3. Suggested to include more practical component.
4. Recommended to encourage students towards online and blended learning on Emerging areas of Computer Science and Information Technology.
5. Suggested to introduce more industry oriented programming languages such as .Net Technologies and Scripting Languages.
6. Recommended to include open source tools in English Language Communication Skills related laboratory courses.

Action taken report:

1. Industry oriented courses were introduced such as Big Data, High Performance Computing, .Net Technologies, Mobile Application Development and Scripting Languages.
2. More number of internship opportunities was provided through MoUs with industries.
3. Mobile Application Development and Data Mining laboratory courses were included.
4. The students were encouraged to attend on-line programs such as Spoken Tutorial Project conducted by IITB, QEEE programs conducted by IITM and programs conducted by Andhra Pradesh State Skill Development Corporation (APSSDC) and APPSC-NASSCOM.
5. Introduced industry oriented programming languages such as .Net Technologies and Scripting Languages.
6. Included new software in English Language Communication Skills laboratory course.

Feedback report from Students:

Feedback was received from 80% of students belonging to 2012-13 and 2013-14 passed out batches and they are:

1. Requested to offer Java Programming as separate course instead of Object Oriented Programming including C++ and Java Programming.
2. Requested to include a lab course on Data Mining.
3. Suggested to introduce a course on Business Communication and Presentation Skills.
4. Suggested to include group activities through co-curricular and extra-curricular activities.
5. Requested to reduce syllabus of Database Management System, Software Engineering and Computer Network courses.
6. Requested to introduce a course on Entrepreneurship for Micro, Small and Medium Enterprises.

Action taken report:

1. Introduced Java Programming in SVEC-14 curriculum offering at II B.Tech II Semester.

2. Data mining laboratory course was introduced in SVEC-14 curriculum offering at III B.Tech II semester.
3. Introduced a course on Business Communication and Presentation Skills in II B.Tech, II Semester.
4. Individual and Group activities were conducted under Technical Associations and CSI student chapter.
5. Removed other kinds of dependencies and Recovery System concepts in Database Management System, Product and Process Metrics concepts in Software Engineering and IEEE standards concepts in Computer Networks courses respectively.
6. Entrepreneurship for Micro, Small and Medium Enterprises course was introduced as open elective.

Feedback report from Faculty members:

Feedback was received from all the members of faculty who taught the courses for R09 and SVEC-10 curriculum and they are:

1. Advised to introduce latest trends of Computer Science and Information Technology courses like Machine Learning, Advanced Computer Architecture, Mobile Application Development and Semantic Web.
2. Suggested to remove redundant topics which were covered in I B.Tech Problem Solving and Computer Programming course such as fundamentals of data structures, basics of sorting and searching techniques in Data Structures course for II B.Tech I semester.
3. Suggested to include Fourier Integrals topic in Matrices and Numerical Methods course, Special Theory of relativity topic in Engineering Physics course and Determination of rigidity modules topic in Engineering Physics Laboratory and topics to enhance LSRW skills in English Language Communication Skills Laboratory course.
4. Advised to move Database Management System and Web Programming courses from III B.Tech I semester to II B.Tech II semester and IV B.Tech I semester to III B. Tech II semester respectively to carryout mini-projects/internship projects.
5. Suggested to offer Seminar and include one more core course in IV B.Tech II semester.
6. Suggested to introduce Cyber Security Laws, Banking and Insurance and Cost Accounting and Financial Management courses and include self learning topics in each course.

Action taken report:

1. Industry oriented courses were introduced on latest trends of Computer Science and Information Technology such as Machine Learning, Advanced Computer Architecture, Mobile Application Development and Semantic Web.
2. Removed redundant topics which were covered in I B.Tech Problem Solving and Computer Programming course such as fundamentals of data structures, basics of sorting and searching techniques in Data Structures course for II B.Tech I semester.
3. Included Fourier Integrals topic in Matrices and Numerical Methods course, Special Theory of relativity topic in Engineering Physics course and Determination of rigidity modulus topic in Engineering Physics Laboratory and topics to enhance LSRW skills in English Language Communication Skills Laboratory course.
4. Moved Database Management System and Web Programming courses from III B.Tech I semester to II B.Tech II semester and IV B.Tech I semester to III B.Tech II semester to carryout mini-projects in laboratory courses and internship projects.
5. Seminar course was added in IV B.Tech I semester.
6. Introduced Cyber Security Laws, Banking and Insurance and Cost Accounting and Financial Management courses and included self learning topics in each course.

B. Tech. in Computer Science and System Engineering**Feedback report from Alumni:**

After summarizing the feedback collected from 42% of Alumni respondents of 2010-11 & 2011-12 batches during the academic years 2012-13 & 2013-14, following are few valuable suggestions made by them for SVEC-14 regulations.

- Suggested to introduce advanced subjects like Real-Time Systems, Kernel Programming which add more impetus to subjects relevant to software Systems Engineering
- Suggested to include Hardware Programming concepts into curriculum as they have high placement potential
- It was suggested to incorporate advanced subjects in the areas of Artificial Intelligence
- Advanced courses in the areas of Computing were suggested to be included

Action taken report:

Based on suggestions from Alumni following actions were taken

- New Subjects such as Kernel Programming and Real-Time Systems were introduced as part of improved emphasis on Software Systems.
- A course on Embedded Systems Programming was introduced in IV B.Tech. I Semester.
- Machine Learning course was introduced into curriculum
- Service Oriented Architecture was introduced into the course structure

Feedback report from Students:

After summarizing the feedback collected from 2012-13 & 2013-14 passed out student batches, 82% of students responded and the following are few valuable suggestions made by them for SVEC-14 regulations

- Requested to introduce new courses with focus on employability
- Suggested to introduce course on .NET Technologies
- Information Retrieval Systems was suggested to be included into curriculum as it is an evolving trend
- Big Data Concepts were requested to be included in the course structure

Action taken report:

Based on suggestions from students following action was taken

- Courses on Mobile Application development was introduced in the curriculum
- Introduced .NET Technologies course into curriculum
- A Course on basics of Information Retrieval Systems was introduced into course structure
- Big Data course was introduced for the first time in the curriculum

Feedback report from Faculty members:

After summarizing the feedback collected during 2012-13 and 2013-14 academic years from all faculty respondents, following are few valuable suggestions made by them for SVEC-14 regulations

- Suggested to remove data structures concepts from Problem solving and Computer Programming course and laboratory as they are repeated in Data Structures Course
- Demarcate C++ programming contents from Object Oriented Programming subject and introduce Objected Oriented Programming through Java

- Introduce two separate courses, Software Engineering and Object Oriented analysis and Design in place of existing course on Object Oriented Software Engineering
- Web Programming was suggested to be studied through scripting language like PHP which has versatile applications.
- In System Software course it was suggested to cover topics under Machine Architecture
- In Cryptography and Network Security course it was suggested to include more knowledge about different types of system attacks
- It was suggested in Operating Systems Course that Security concepts can be studied in other courses like network security and Computer Networks and more emphasis to be given on Process Management
- Hash Based indexing techniques were suggested to be included in Database Management Systems
- Topics on classification Methods in Data Warehousing and Data Mining Course were suggested to be included
- Suggested to unify among applications of dynamic programming in Design and Analysis of Algorithms course

Action taken report:

Action taken on feedback from Faculty members

- Contents like Linked lists, circular lists were excluded from Problem Solving and Computer Programming.
- A course on Object Oriented Programming through Java programming language was introduced after inclusion of JDBC and Servlets concepts.
- Two Courses namely Software Engineering and Object oriented Analysis and Design were introduced in the curriculum replacing existing course on Object Oriented Software Engineering
- Concepts of HTML 5, PHP, JQUERY and MYSQL were introduced into Web Technologies course
- In System Software course more topics relevant to Machine architecture of Simplified Instructional Computer were embraced
- In Cryptography and Network Security concepts related to intrusion detection and prevention and firewalls were include
- In Operating Systems Subject more emphasis on Process Management was given after removing concepts relevant to Security

- In Database Management Systems topics on Hash based indexing were integrated into syllabus and topics on performance indexing and tuning were excluded
- Topics on Bayesian classification network , Bagging and Boosting were incorporated into Data Warehousing and Data Mining course
- Topics on reliability design and string editing were unified into Design and Analysis of Algorithms course

Feedback report from Employer for all B. Tech. Programs:

Employer feedback was taken centrally. About twenty companies have visit our campus for recruitment of each of 2010-11 and 2011-12 passed out batches of our students. The feedback on curriculum is requested from these companies and also companies where our alumni are employed directly in the academic years 2012-13 and 2013-14. The salient features of feedback report are summarized below:

1. Companies such as Tata Consultancy Services, Wipro Technologies, Tech Mahindra, Patni Computer Systems, IBM, Sonata suggested to include the following new courses in the relevant programs of computer sciences.
 - (a) Mobile computing
 - (b) Machine learning
 - (c) Big data
 - (d) .Net technology
 - (e) Human computer interaction
 - (f) Real time systems
2. Companies such as Robert Bosch, Amara Raja, Ravands Controls suggested to include the following new courses in the relevant programs of electrical sciences.
 - (a) Power quality
 - (b) Smart grid technologies
 - (c) Mixed IC design
 - (d) Distributed control systems

As first batch of Civil Engineering passed out in 2012-13 and that of Mechanical Engineering in 2014-15, no employer feedback is available.

Action taken report:

Based on the employer feedback, new courses are included in the respective program as given below:

1. Courses on Mobile computing and Machine learning are included in Computer Science and Engineering.
2. Courses on Big data and .Net technology are included in Information Technology.
3. Courses on Human computer interaction and Real time systems are included in Computer Science and System Engineering.
4. Courses on Power quality and Smart grid technologies are included in Electrical and Electronics Engineering.
5. Course on Mixed signal design is included in Electronics and Communication Engineering
6. Course on Distributed control systems is included in Electronics and Instrumentation Engineering.

M. Tech. in Computer Science

Feedback report from Alumni:

Feedback was taken from 2010-2011 passed out students during the academic year 2012-2013. About 44% of the Alumni responded to the request. The summary of the feedback is as follows:

- Data structures and Database Management Systems lab can be strengthened
- More courses like Soft Computing and Cognitive networks can be introduced
- Concepts related to Automata Theory can be introduced as a course
- Diversified courses like Service Oriented Architecture can be introduced

Action taken report:

Based on the feedback received from students, the following actions were taken:

- Implementation of B-Trees, AVL Trees, Red-Black trees, implementation of database objects, implementation of C program segment with embedded SQL were incorporated in Data structures and Database Management Systems lab
- Courses like Soft Computing, Digital Image Processing and Pattern Recognition, Cloud Computing, Embedded Systems were introduced
- Concepts of Automata Theory such as fundamentals of finite automata, regular languages, CFGs, PDAs, TMs, Computability were integrated in the course titled, Discrete Structures and Automata Theory
- Diversified courses like Service Oriented Architecture and System Thinking were introduced

Feedback report from Students:

Feedback was taken from the students who were passing out during the academic year, 2012-2013. About 83% of the Students responded to the request. The summary of the feedback is as follows:

- Course such as soft computing would help to enhance the knowledge related to optimization techniques
- Courses related to Image Processing would be required as there was a lot of demand in the industry
- Industry demand courses like cloud computing would be helpful in getting more placements
- Embedded systems would be an interesting course

Action taken report:

Based on the feedback received from students, the following actions were taken and were reflected in SVEC14 regulations:

- Soft Computing course was introduced to enhance the skills of the students in the field of optimization
- Digital Image Processing and Pattern Recognition course was introduced as a course related to computer vision which increases employability and also as there is more scope of research
- Cloud computing was introduced as elective
- Embedded systems course was introduced as an elective

Feedback report from Faculty members:

Feedback was taken from **all** the faculty members of M.Tech(CS) program. The following were the suggestions made by the faculty which were considered for the improvement of the curriculum:

- Advanced Database Management Systems could be refined
- Mining of Spatial data, web can be included in Data Warehousing and Data Mining course
- Concepts related to graphics can be introduced as a course

Action taken report:

Based on the feedback from the faculty, the following actions were taken:

- Advanced Database Management Systems was refined by including topics such as Introduction to SQL programming techniques, Disk storage, hashing, indexing,

concepts of object DB, Enhanced data models for advanced applications, web database programming, emerging database technologies and applications

- Mining Object-Spatial-Multimedia- Text and Web data concepts were included in Data Warehousing and Data Mining Course.
- Concepts of graphics were included into the computer vision course and the title was changed as Computer Vision and Graphics

M. Tech. in Electrical Power Systems

Feedback report from Alumni:

Feedback was taken from 2010-11 Passed out batch during the academic year 2012-2013. About 40% of them had responded to the survey. Their feedback was summarized and is as follows:

1. To meet the industrial requirements, advanced courses on power system security and stability in the area of power systems should be introduced, as such concepts were used vastly in industry.
2. An Advanced course addressing the latest developments in the power electronics domain should be introduced into the curriculum which will open the new avenues for research.
3. A course of energy conversion in wind, solar and other technologies could be introduced in the curriculum.

Action taken report:

1. Advanced new courses like "Power System Security and State Estimation" and "Advanced Power System Stability Analysis" were introduced in the power systems domain.
2. A new course "Power Electronics Converters" was introduced into the curriculum to impart latest advances in the power electronics domain and its applications in power systems.
3. A new course "Solar and Wind Energy Conversion Systems" was introduced into the curriculum to impart advanced knowledge on solar and wind energy conversion technologies which are widely used in renewable energy conversion.

Feedback report from Students:

Feedbacks of the students of 2012-2013 Passed out batch during the academic year 2012-13 had been collected and were summarized as follows. About 80% of students gave the feedback.

1. Emerging courses like smart grids, their realization and implementation aspects should be introduced as a new course into the curriculum.

2. To provide awareness and deep insight about the research process an exclusive course should be dedicated.
3. A course consisting of various methods of optimization should be introduced.

Action taken report:

1. A new course "Smart Grid Technology" was introduced into the curriculum so as to provide deep insight on the emerging technology.
2. A new course "Research Methodology" was introduced into the curriculum to provide orientation, awareness on the research avenues, process & documentation skills among the students, and also to take up research programs after graduation.
3. A new course "Optimization Techniques" was introduced to educate the principles and methods of optimization which would be helpful to carry out their projects.

Feedback report from Faculty members:

Feedback from all the Faculty members who taught the courses of the program were collected and are summarized as follows:

1. Concepts on usage and application of Software tools like MATLAB, PSCAD shall be stressed seriously.
2. More Lab exercises on MATLAB, PSCAD could be introduced.
3. The course "Advanced Microprocessors and Microcontrollers" shall be discontinued as it doesn't have relevance to power systems. A new course discussing the applications of Microcontrollers in power system domain may be introduced in its place.
4. The concepts such as power quality enhancement using custom power devices and power quality issues in distributed generation should be considered for inclusion into the course power quality.
5. The concept coordination of FACTS controllers is crucial for mitigating various power quality issues and must be included somewhere into the power system courses.
6. Some nonconventional search/optimization algorithms and smart techniques should be included somewhere in the curriculum appropriately.
7. Some advanced concepts on observability and controllability of control system should be included into the course to substantiate the domain.
8. Programming skill on a micro controller should be imparted among the students through more practical exercises.

9. Some more real time exercises should be added into laboratory power systems and relays lab.

Action taken report:

1. Modeling and analysis of power system using the modern simulation tools such as MATLAB and PSCAD were reinforced in the laboratory course "Power Systems Simulation lab".
2. Advanced lab exercises related to power system using MATLAB and PSCAD were introduced in the lab course "Power Systems Simulation lab".
3. A new course "Microcontrollers and Applications" was introduced in place of "Advanced Microprocessors and Microcontrollers".
4. The concepts Power Quality enhancement using custom power devices and power quality issues in distributed generation was introduced in the course "Power Quality".
5. The concepts of Coordination of FACTS controllers were introduced into the course "Flexible AC Transmission System" to enable the students to understand the coordinating and other aspects of various FACTS devices.
6. The concepts of genetic algorithms and intelligent hybrid algorithms were introduced into the course "Intelligent Control" which enables the students to carry out their projects and also to transform them into research.
7. The concepts such as Full order Observer & reduced order observer and State regulator were introduced into the course "Advanced Control Systems".
8. The concepts of programming & Interfacing of PIC Microcontrollers were included in the course "Microcontrollers and Applications".
9. The Power Systems and Relays lab was substantiated with new experiments related to reactive power compensation and long transmission line analysis.

M. Tech. in Software Engineering

Feedback report from Alumni:

Feedback was received from 40% of alumni belonging to 2010-11 passed out batch and they are:

1. Suggested to introduce advanced courses such as Big Data and Machine Learning.
2. Recommended to introduce User Interface Design as course in curriculum.
3. Suggested to introduce Software Development laboratory.
4. Suggested to include PHP, HTML 5, JQuery concepts in Web Technologies course.

Action taken report:

1. Industry oriented courses were introduced for M.Tech such as Big Data Technologies, and Machine Learning.
2. User Interface Design is introduced in M. Tech (SE), I Semester as an elective course.
3. Software Development laboratory introduced in M. Tech(SE), II Semester with Software Requirements and Estimation, Software Metrics, Software Design and Design Patterns exercises.
4. The syllabus of Web Technologies was designed including PHP, HTML 5, JQuery and AJAX concepts.

Feedback report from students:

Feedback was received from 80% of students belonging to 2012-13 passed out batches and they are:

1. Opined to offer Data Structures and algorithms as a course instead of Advanced Data Structures.
2. Advised to introduce a Software Process Management and Software Project Management as a single core course.

Action Taken Report:

1. Introduced Data Structures and Algorithm course in M. Tech (SE), I-Semester.
2. Introduced Software Process and Project Management course in M. Tech (SE), I-Semester.

Feedback report from Faculty Members:

Feedback was received from all the members of faculty who taught the courses of the program and they are:

1. Suggested to introduce Software Reverse Engineering course.
2. Requested to introduce Software Reuse and Big data courses.
3. Recommended to introduce an exclusive course Research Methodology to enhance research skills of the students.

Action Taken:

1. Software Reverse Engineering course was introduced in II Semester.
2. Introduced Big Data Technologies and Software Reuse elective courses in II-Semester.
3. Research Methodology course was introduced in I-Semester.

M. Tech. in Digital Electronics and Communication Systems

Feedback report from Alumni:

Feedback was taken from 2010-11 Passed out batch during the academic year 2012-2013. About 40% of them responded to our survey. Their feedback is summarized as follows:

1. To meet the industrial requirements, advanced knowledge in latest technologies has to be gained through the introduction of new courses in digital domain .
2. Experiments on image processing have to be included in Signal Processing Laboratory.
3. Course on Microcontroller has to be strengthened by introducing concepts on Advanced controllers.

Action taken report:

1. New courses like Testing and Testability of Digital Systems, Neural Networks and Fuzzy Systems, Display Technologies and Devices and Low Power CMOS VLSI Design in digital domain were included to fulfill the industrial needs.
2. Experiments on image processing were included in Signal Processing Laboratory.
3. Industry-based hardware choice involving modern ARM and PIC controllers and system design based on these controllers were included.

Feedback report from Students:

The students of 2012-13 Passed out batch were asked to give feedback for the curriculum improvement. The following were the suggestions given by 80% of them:

1. Focus on various commercial RTOS has to be included.
2. Syllabus in Wireless Communications has to be compressed.
3. Courses on Advanced Signal and Image processing can be included in the curriculum.

Action taken report:

1. The course on Real Time Systems was strengthened and improved by including Scheduling relating to multiprocessor and distributed systems. Also focus on various commercial RTOS was made.
2. Syllabus in Wireless Communications was compressed. New contents on Equalization, Wireless Networks and Multicarrier Modulation were added to suit to the current trends.
3. Advanced courses in the field of Signal and Image processing titled Adaptive Signal Processing and Compression Techniques were introduced.

Feedback report from Faculty members:

Feedback report was taken from all the Faculty members who taught the courses of the program during 2012-13. The following suggestions were considered for improvement in curriculum.

1. A new course in the curriculum can be included to enhance the research skills of the students.
2. Course Contents in subjects like Computer Networks, Optical Communications and Networks, Embedded System Design and Wireless Communications should be compressed and logically reorganized.
3. A course on wavelet transformation techniques can be introduced to work in areas like Digital signal and Image processing.

Action taken report:

1. A course on Research Methodology was included to enhance research skills of the students.
2. Content on Wireless Networks and Network Security was included and redundant topics were removed. The syllabus in Optical Communications and Networks was logically reorganized and new topics on error detection and correction were included. Programming concepts using C, C++, and Java were included in Embedded System Design.
3. Courses on Transform Techniques and Speech processing were included in the curriculum.

M. Tech. in VLSI**Feedback report from Alumni:**

Feedback was taken from 2010-11 Passed out batch during the academic year 2012-13. About 40% of them responded to our survey. Their feedback is summarized as follows:

1. To meet the industrial requirements, advanced knowledge in latest technologies has to be gained through the introduction of new courses.
2. Experiments on front-end and back-end design have to be included in Mixed Signal Laboratory.
3. Course on Physical Design Automation, Co-Design and Analog IC Design has to be Strengthened by introducing concepts related to analysis and design.

Action taken report:

1. New courses like Computational Techniques in Microelectronics, Device Modeling, Low Voltage Analog Circuit Design, ULSI Technology, IC Fabrication and RF IC Design were included to fulfill the industrial needs.

2. Experiments on front-end and back-end design were included in Mixed Signal Laboratory.
3. More relevant algorithms and the design aspects were included in Physical Design Automation. Contents on COSYMA and LYCOS co-design systems were elaborated. Topics on stability and noise analysis were included in Analog IC Design.

Feedback report from Students:

The students of 2012-13 Passed out batch were asked to give feedback for the curriculum improvement. The following were the suggestions given by 80% of them:

1. More applications on FIR and IIR digital filters can be dealt in detail for FPGA based designs.
2. Suggested to include experiments on Analog IC design.
3. To enhance the analytical skills of the students a course on Computational Techniques in Microelectronics can be included in the curriculum.
4. To focus on employability and emphasize fabrication issues, a course on fabrication can be included.

Action taken report:

1. The course on FPGA Applications was strengthened .More number of applications were included.
2. Experiments on Analog IC design were added in Analog and Digital IC Design Lab.
3. A course titled Computational Techniques in Microelectronics was included in the curriculum.
4. Two new courses on fabrication titled IC Fabrication and ULSI Technology were included in the curriculum.

Feedback report from Faculty members:

Feedback report was taken from all the Faculty members who taught the courses of the program during the academic year 2012-13. The following suggestions were considered for improvement in curriculum.

- 1 A new course in the curriculum can be included to enhance the research skills of the students. Self-study content with emphasis on advanced and research topics has to be included in almost all the courses.
- 2 A new course has to be introduced to gain in-depth knowledge in fabrication process pertaining to ICs and fabrication issues in ULSI technology.

- 3 Courses on Digital signal processing and wireless sensor networks can be introduced in the curriculum to emphasize signal processing techniques in VLSI design in order to work in areas like wireless communications, Digital signal and Image processing.
- 4 Redundancy has to be removed in Testing and Testability. Also the syllabus should be reorganized logically.

Action taken report:

1. A course on Research Methodology was included to enhance research skills of the students. Self-study concepts were included in all the lesson plans.
2. Courses on FPGA Applications and ULSI Technology were introduced in the curriculum to help the students to get adapted to the latest technology.
3. New courses like Advanced Digital Signal Processing, DSP Processors and Wireless Sensor Networks were introduced to build research environment.
4. Syllabus in Testing and Testability was compressed and logically reorganized.

M. Tech. in Communication Systems

Feedback report from Alumni:

First batch of the program has passed out only in the academic year 2012-13 and hence no feedback is applicable.

Action taken report:

Not applicable.

Feedback report from Students:

The students of 2012-13 Passed out batch were asked to give feedback for the curriculum improvement. The following were the suggestions given by 80% of them:

1. Courses like Software defined Radio can be introduced.
2. Syllabus in Wireless Communications has to be compressed.
3. Suggested to add experiments on Spread spectrum systems.

Action taken report:

1. The course on Software defined Radio was introduced in the curriculum.
2. Syllabus in Wireless Communications was compressed. New contents on Equalization, Wireless Networks and Multicarrier Modulation were added to suit to the current trends.
3. An experiment on Design and simulation of Base Band sequence Spread spectrum system was included in Communication Lab.-I

Feedback report from Faculty members:

Feedback report was taken from all the Faculty members during 2012-13 academic year who taught the courses of the program. The following suggestions were considered for improvement in curriculum.

1. A new course in the curriculum can be included to enhance the research skills of the students.
2. The course on Advanced Mathematics for Communication Systems can be Strengthened by introducing Eigen analysis, Engineering applications and vector space concepts so that these concepts will be helpful in designing various systems.
3. Experiments on Design of WDM systems have to be included.

Action taken report:

1. A course on Research Methodology was included to enhance research skills of the students.
2. Advanced Mathematics for Communication Systems is renamed as Linear Algebra and was strengthened by including chapters on Eigen analysis, engineering applications in Linear Algebra, Design of Dynamic Systems and vector space concepts.
3. An experiment on WDM system design was included in communication Lab.-II.

M. Tech. in Computer Networks and Information Security**Feedback report from Alumni:**

M.Tech (CNIS) Program was started in the academic year 2011-12 and the first batch of students were passed out in academic year 2012-13. Hence, the feedback from the alumni would not be there.

Action taken report:

Not Applicable

Feedback report from Students:

Feedback was taken from the students who were passing out during the academic year, 2012-2013. About 82% of the Students responded to the request. The summary of the feedback is as follows:

- More electives can be introduced based on the recent trends
- Fundamental courses like advanced computer networks can be introduced

- Practical sessions can be introduced for wireless networks and information security
- Courses like Adhoc wireless networks, web programming are essential

Action taken report:

Based on the feedback received from students, the following actions were taken and were reflected in SVEC14 regulations:

- Subjects like software testing and techniques, database security were introduced as electives
- Advanced Computer Networks was introduced as core subject to make the fundamentals of the students strong enough
- Qualnet Software is used to develop Computer Network programs which was newly introduced as Computer Network and Information Security lab course
- Courses such as Ad hoc Wireless Networks, Web Programming, Computer Forensics, Research Methodology were introduced

Feedback report from Faculty members:

Feedback was taken from all the faculty members of M.Tech (CNIS) program in the year 2012-13. The following were the suggestions made by the faculty which were considered for the improvement of the curriculum:

- Security Engineering Concepts can be removed from Software Security Engineering to avoid the redundancy in the Information Security
- Virtualization concepts can be included in cloud computing
- Concepts related to security can be included in wireless networks

Action taken report:

Based on the feedback from the faculty, the following actions were taken:

- Security Engineering Concepts were removed from Software Security Engineering to avoid the redundancy in the Information Security course which is newly introduced.
- Virtualization concepts were added in the first unit of the cloud computing course and the title of the course is renamed as "Virtualization and Cloud Computing"
- Wireless Security Concepts were included into the Wireless Networks Course.

Feedback report from Employer for all M. Tech. Programs:

Employer feedback was taken centrally. The feedback on curriculum was taken from employers who recruited 2010-11 passed out batches of our students in the academic year 2012-13. Companies such as **Patni Computer Systems**, Wipro Technologies, have responded our request. They suggested to include the following new courses in relevant specialisation.

1. Information retrieval systems
2. Software project management
3. Web programming
4. Power system security and state estimation
5. Smart grid technology
6. Display technologies and devices
7. Transformation techniques
8. Computational techniques in microelectronics
9. ULSI technology
10. Software defined radio
11. Mobile computing and information security
12. Software testing and techniques

Action taken report:

As suggested by the employers, new courses were included in the various specializations.

1. Courses on Information retrieval systems, Software project management, and Web programming are included in Computer Science.
2. Courses on Power system security and state estimation, and Smart grid technology are included in Electrical Power Systems.
3. Courses on Display technologies and devices and Transformation techniques are included in Digital Electronics and Communication Systems.
4. Courses on Computational techniques in microelectronics and ULSI technology are included in VLSI.
5. Course on Software defined radio is included in Communication Systems.
6. Courses on Mobile computing and information security, and Software testing and techniques are included in Computer Networks and Information Security.

Master of Computer Applications

Feedback report from Alumni:

Feedback was taken from 2010-11 passed out batch during the academic year 2012-13. About 40% of them responded to our survey. Their feedback is summarized as follows:

1. Suggested to implement laboratory for Cloud Computing, Object Oriented Analysis and Design and Computer Networks, as these courses enhance the programming skills among students.
2. Recommended to include advanced courses like Big Data Analytics, Social Media, Network Management, Design patterns, AJAX and PHP programming which plays an essential role in industry.
3. Include separate laboratory sessions for Programming through C and Data Structures as these are core courses to improve the programming skills among students.

Action taken report:

1. Laboratories were included for Cloud Computing, Object Oriented Analysis and Design and Computer Networks courses to enhance programming skills among students.
2. Big Data Analytics, Social Media, Network Management, design patterns, AJAX and PHP programming courses were introduced.
3. Included laboratories for Programming through C and Data Structures to acquire advanced programming skills among students.

Feedback report from Students:

Feedback was taken from 2012-13 passed out batch during the academic year 2012-13. About 80% of them were responded to our survey. Their feedback was summarized as follows:

1. Suggested to introduce foundation concepts in programming through C, Computer Organization and Mathematical Foundation of Computer Science courses.
2. Suggested to include Data Warehouse Transformations in Data Warehousing and Data Mining Lab to improve skills in database field.
3. Recommended to include the related topics on Java collections in Object Oriented Programming, open source tools in cloud computing Laboratory as most of the industries adapt open source tools and Implement RDBMS as back end for development of web applications.

Action taken report:

1. The syllabi of programming through C, Computer Organization and Mathematical Foundation of Computer Science were refined.
2. Data warehousing transformations were introduced in Data Warehousing and Data Mining laboratory.
3. Included topics like Java collections in Object Oriented Programming, open source tools in cloud computing Laboratory as most of the industries adapt open source tools and Implement RDBMS as back end for development of web applications.

Feedback report from Faculty members:

Faculty feedback was received from all the members of faculty who taught the courses for SVEC 10 regulations for the academic year 2012-13. All the faculty members were responded and following are few valuable suggestions made on SVEC 14 regulations:

1. Suggested to include Networks lab and Cloud Computing as core courses instead of elective.
2. Student's presentations and communication skills have to be improved through introduction of new course to exhibit their talent and skills at their work place.
3. Recommended to incorporate more laboratories, Implementation of Network Lab using UNIX programming, Cloud Computing as Core course, Professional Ethics, UNIX Internals, Separate laboratory sessions for Programming through C and Data Structures.
4. Recommended to include professional ethics, tutorials for core courses and Case studies to nurture the domain skills of students.
5. Suggested to revise the syllabus of Object oriented analysis and Design, Mathematical Foundations of Computer Science, Data Structures and Database management systems.
6. IT- Workshop would be considered as a regular course.

Action taken report:

1. Skill enhancement courses like Network lab and Cloud Computing as a core course were introduced.
2. Courses on Business Communication and Presentation Skills and Seminar were introduced for the benefit of the students.
3. Courses were introduced to incorporate more laboratories, Implementation of networks Lab using UNIX programming, Cloud Computing as Core course, Professional Ethics, Unix internals, Separate laboratory sessions for Programming through C and Data Structures.

4. Refinement of syllabus were done on Object oriented analysis and Design, Mathematical Foundations of Computer Science, Data Structures and Database management systems along with better correlation of concepts.
5. IT- Workshop was considered as core course in SVEC14 regulations.

Feedback report from Employer:

Employer feedback is taken centrally. The feedback on curriculum is taken from employers who recruited 2010-11 passed out batches of our students in the academic year 2012-13. Companies such as Tata Consultancy Services, Sonata Software Pvt. Ltd., Virtusa, Hyderabad; Wipro Technologies, Hyderabad; Patni Computer Systems Ltd., Hyderabad; Tech Mahindra & Mahindra Satyam, have responded our request. They suggested to include the following new courses.

1. Social media and network management
2. Information security lab
3. Professional ethics

Action taken report:

As suggested by the employers, all the above new courses are included.

Feedback reports and Action taken reports for curriculum improvements under SVEC16 Regulations Introduced in the Academic Year 2016-17:

BS&H courses for B. Tech. Programs:

To reduce the redundancy, the feedback reports from faculty members of **Basic Sciences and Humanities (BS&H)** department and the action taken reports are summarized below:

Feedback report from Faculty members of BS&H:

All faculty members of BS&H department, who have taught their courses to students of various B. Tech. Programs, were given their opinion on curriculum improvements. Faculty opined that the following curricular modifications to be incorporated in the next curriculum revision (SVEC16).

1. Inclusion of a theory course on "Multi-Variable Calculus and Differential Equations" in place of "Engineering Mathematics" in SVEC14 with inclusion of topics: Applications of differential extended to several electrical oscillatory circuits, limits and continuity, Taylor series expansion for functions of two variables, areas enclosed by plane curves.
2. Inclusion of a theory course on "Matrices and Numerical methods" in place of "Mathematical methods" in SVEC14 with inclusion of topics: Different methods of reduction of quadratic form to normal form, partial fractions and differential equations by numerical methods.
3. Inclusion of a theory course on "Probability Distributions and Statistical Methods" in place of "Probability and Statistics" in SVEC14 by reorganizing the syllabus
4. Inclusion of a new theory course on "Transformation Techniques and Partial Differential Equations"
5. Addition of concept on computerized accounting in "Managerial Economics and Principles of Accountancy" course
6. Inclusion of topic on amplifications of lasers and removing of some topics due to redundancy in revised IPE syllabus in "Engineering Physics" course
7. Inclusion of exclusive lab courses on "Engineering Chemistry" and "Engineering Physics" in place of "Engineering Physics and Engineering Chemistry Lab" in SVEC14
8. Inclusion of exercise on calculations of AC frequency in "Engineering Physics Lab" course
9. Inclusion of experiments on corrosion of metals in different media in "Engineering Chemistry Lab" course

10. Inclusion of topics on effects of fluoride on human health and de-fluorination methods, engineering plastics and their applications, concepts related bio-chemistry and green chemistry in "Engineering Chemistry" course
11. Addition of new topics to enhance/improve writing and reading skills among students in "Technical English" course
12. Renaming of the lab course on "English Language Communication Skills Lab" to "English Language"
13. Inclusion of a lab course on "Soft Skills"
14. Inclusion of topics on electronic wallet and insurance functions in "Banking and Insurance" course
15. Inclusion of specific topics relating to finance, risk and return, security analysis and portfolio management in "Cost Accounting and Financial Management" course.
16. Inclusion of topics related to entrepreneurship, start-ups (with new guidelines) and state financial corporations in "Entrepreneurship for Micro, Small and Medium Enterprises" course
17. Addition of new open electives courses on Personality Development, Indian Heritage and Culture, Indian Economy, Public Administration, Indian Constitution, German Language, French Language, Indian History, Philosophy of Education and Business Communication and Career skills.

Action taken reports:

1. A theory course on "Multi-Variable Calculus and Differential Equations" was introduced in place of "Engineering Mathematics" in SVEC14 with included the topics on applications of differential is extended to several electrical oscillatory circuits, limits and continuity, Taylor series expansion for functions of two variables and areas enclosed by plane curves.
2. A theory course on "Matrices and Numerical methods" was introduced in place of "Mathematical Methods" in SVEC14 with included the topics on different method of reduction of quadratic form to normal form, partial fractions and differential equations by numerical methods.
3. A theory course on "Probability Distributions and Statistical Methods" was introduced in SVEC16 in place of "Probability and statistics" in SVEC14 with reorganizing the syllabus
4. A theory course on "Transformation Techniques and Partial Differential Equations" was introduced in SVEC16 compared to SVEC14.

5. Concept of computerized accounting was introduced in "Managerial Economics and Principles of Accountancy" course
6. Amplifications of lasers included and some topics were removed due to redundancy (introduced in revised IPE syllabus) in "Engineering Physics" syllabus
7. Lab courses on "Engineering Chemistry" and "Engineering Physics" were introduced in SVEC16 in place of "Engineering Physics and Engineering Chemistry Lab" in SVEC14.
8. Calculations of AC frequency were introduced in "Engineering physics" Lab course
9. Experiments on corrosion of metals in different media introduced in "Engineering Chemistry Lab" course
10. Effects of fluoride on human health, de-fluorination methods, engineering plastics and their applications, concepts related bio-chemistry and green chemistry were introduced in "Engineering Chemistry" course.
11. New topics were added to enhance/improve writing and reading skills among students in "Technical English" course
12. A lab course on "English Language" was introduced in SVEC16 in place of "English Language Communication Skills Lab" in SVEC14.
13. A lab course on "Soft Skills Lab" was introduced in SVEC16
14. Electronic wallet and insurance functions were introduced in "Banking and Insurance" course
15. Specific topics relating to finance, risk and return, security analysis and portfolio management were introduced in "Cost Accounting and Financial Management" course
16. Topics related to entrepreneurship, start-ups (with new guidelines) and state financial corporations were introduced in "Entrepreneurship for Micro, Small and Medium Enterprises" course.
17. New courses on Personality Development, Indian Heritage and culture, Indian Economy, Public Administration, Indian Constitution, German Language, French Language, Indian History, Philosophy of Education and Business Communication and Career skills were introduced as open electives.

B. Tech. in Civil Engineering

Feedback report from Alumni:

Alumni of about 40% belonging to passed out batches in the academic years 2012-13 and 2013-14 were participated in the feedback on curriculum and their suggestions are mentioned hereunder.

1. Inclusion of theory course on "Irrigation Engineering"
2. Inclusion of theory courses on "Building Materials and Construction Technology" and "Concrete Technology"
3. Inclusion of theory courses on "Highway and Traffic Engineering" and "Railway, Airport and Harbour Engineering" in place of Transportation Engineering-I and II.
4. Inclusion of separate lab courses on "Concrete Technology" and "Highway Engineering" in place of Concrete and Highway Materials Lab.
5. Inclusion of lab courses on "Building Materials and Construction Technology" and "MATLAB Practice for Civil Engineers"
6. Inclusion of theory course on "Construction Planning and Project Management"
7. Addition of a lab course on "Civil Engineering Software"
8. Addition of Interdisciplinary elective theory courses on Principles of Image Processing, Costing and Finance Management for Civil Engineers, Renewable Energy, Computational Fluid Dynamics, Data Base Management Systems, Optimization Techniques, Fire Engineering, Energy Audit and Conservation.
9. Addition of advanced theory courses on Advanced Reinforced Cement Concrete Structures, Advanced Surveying, Structural Health Monitoring, Building Maintenance and Repair, Green Technologies, Global Positioning System (GPS), Transportation Planning and Management, Highway Construction and Maintenance, Pavement Analysis and Design as electives for better employability.

Action taken report:

Based on the feedback from Alumni on curriculum, the following changes were incorporated in the curriculum of SVEC16:

1. A Theory course on "Irrigation Engineering" was introduced.
2. "Building Materials and Construction Technology" and "Concrete Technology" were offered as new courses.
3. Theory courses on "Highway and Traffic Engineering" and "Railway, Airport and Harbour Engineering" were introduced in place of Transportation Engineering-I and II.
4. Lab courses on "Concrete Technology" and "Highway Engineering" were introduced
5. Lab courses on "Building Materials and Construction Technology" and "MATLAB Practice for Civil Engineers" were introduced.
6. A theory course on "Construction Planning and Project Management" was introduced

7. A lab course on "Civil Engineering Software" was introduced
8. Theory courses on Principles of Image Processing, Costing and Finance Management for Civil Engineers, Renewable Energy, Computational Fluid Dynamics, Data Base Management Systems, Optimization Techniques, Fire Engineering, Energy Audit and Conservation were introduced as Interdisciplinary Electives.
9. Theory courses on Advanced Reinforced Cement Concrete Structures, Advanced Surveying, Structural Health Monitoring, Building Maintenance and Repair, Green Technologies, Global Positioning System (GPS), Transportation Planning and Management, Highway Construction and Maintenance, Pavement Analysis and Design were introduced as Program Electives.

Feedback report from Students:

Feedback on curriculum was obtained from 80% of the students from batches 2014-15 and 2015-16. Students would like to have the following changes in the curriculum during the next revision (SVEC16 Regulations).

1. Inclusion of a theory course on "Irrigation Engineering"
2. Inclusion of Building Materials and Construction Technology as new course in place of Building Materials and Concrete Technology
3. Inclusion of theory courses on "Highway and Traffic Engineering" and "Railway, Airport and Harbour Engineering" in place of Transportation Engineering-I and II.
4. Exclusive lab courses on "Concrete Technology" and "Highway Engineering" in place of Concrete and Highway Materials Lab
5. Inclusion of a theory course on "Multi-Variable Calculus and Differential Equations"
6. Inclusion of theory and lab courses on "Programming in C"
7. Exclusive lab courses on "Engineering Chemistry" and "Engineering Physics" in place of Engineering Physics and Engineering Chemistry Lab
8. Inclusion of lab course on "English Language" in place of "English Language Communication Skills Lab".
9. Inclusion of a theory course on "Transformation Techniques and Partial Differential Equations"
10. Inclusion of a lab course on "Engineering Workshop Practice"
11. Inclusion of theory course on "Probability Distributions and Statistical Methods"
12. Inclusion of a theory course on "Environmental Studies" in place of "Environmental Sciences"

13. Inclusion of new lab course on "Civil Engineering Software" for enhancing employability
14. Inclusion of new lab courses on "Building Materials and Construction Technology" and "MATLAB Practice for Civil Engineers" for better employability.
15. Inclusion of a theory course on "Concrete Technology"
16. Inclusion of a theory course on "Construction Planning and Project Management"
17. Inclusion of a theory course on "Estimation and Quantity Surveying"
18. Inclusion of Interdisciplinary Electives Theory courses on Principles of Image Processing, Costing and Finance Management for Civil Engineers, Renewable Energy, Computational Fluid Dynamics, and Optimization Techniques.
19. Addition of advanced theory courses on Advanced Reinforced Cement Concrete Structures, Advanced Surveying, Structural Health Monitoring, Building Maintenance and Repair, Green Technologies, Global Positioning System (GPS), Transportation Planning and Management, Highway Construction and Maintenance, Pavement Analysis and Design.

Action taken report:

Based on the opinion of students, the following changes were incorporated in the curriculum of SVEC 2016 Regulations.

1. A theory course on "Irrigation Engineering" was introduced
2. Building Materials and Construction Technology was offered as new course in place of Building Materials and Concrete Technology
3. Theory courses on "Highway and Traffic Engineering" and "Railway, Airport and Harbour Engineering" were introduced in place of Transportation Engineering-I and II.
4. Lab courses on "Concrete Technology" and "Highway Engineering" were introduced in place of "Concrete and Highway Materials Lab"
5. A theory course on "Multi-Variable Calculus and Differential Equations" was introduced.
6. Theory and lab courses on "Programming in C" were introduced
7. Lab courses on "Engineering Chemistry" and "Engineering Physics" were introduced
8. A lab course on "English Language" was introduced in place of "English Language Communication Skills Lab"

9. A theory course on "Transformation Techniques and Partial Differential Equations" was introduced.
10. A lab course on "Engineering Workshop Practice" was introduced
11. A theory course on "Probability Distributions and Statistical Methods" was introduced
12. A theory course on "Environmental Studies" was introduced in place of "Environmental Sciences"
13. A lab course on "Civil Engineering Software" was introduced.
14. Lab courses on "Building Materials and Construction Technology" and "MATLAB Practice for Civil Engineers" were introduced.
15. A theory course on "Concrete Technology" was introduced
16. A Theory course on "Construction Planning and Project Management" was introduced
17. A Theory course on "Estimation and Quantity Surveying" was introduced in place of "Estimation, Costing & Valuation"
18. Theory courses on Principles of Image Processing, Costing and Finance Management for Civil Engineers, Renewable Energy, Computational Fluid Dynamics, Optimization Techniques, were introduced as Interdisciplinary Electives.
19. Theory courses on Advanced Reinforced Cement Concrete Structures, Advanced Surveying, Structural Health Monitoring, Building Maintenance and Repair, Green Technologies, Global Positioning System (GPS), Transportation Planning and Management, Highway Construction and Maintenance, Pavement Analysis and Design were introduced as Program Electives.

Feedback report from Faculty members:

All faculty members were given their opinion on curriculum for improvement. Faculty opined the following modifications in curriculum in the next revision (SVEC16 Regulations).

1. Inclusion of theory and lab courses on "Programming in C" in place of "Programming in C and Data Structures Lab" in SVEC14
2. Inclusion of new lab course on "MATLAB Practice for Civil Engineers"
3. Inclusion of a theory course on "Environmental Studies" in place of "Environmental Sciences" in SVEC14
4. Addition of a new lab course on "Civil Engineering Software"

5. Change of theory course "Prestressed Concrete" from core to program elective
6. Consideration of limit state design method alone in the design of welded plate girders (as per IS 800-2007) in unit 1, shifting the topic on plastic analysis from this course to "Structural Analysis-II" course, and addition of topics on steel-concrete composite construction and grillage foundation in "Advanced Steel Structures" course.
7. Rewriting of CEOs, COs; Renaming unit 1, addition of topics in unit 2 and unit 3, rearranging topics in unit 5 and updated with revised IS code in "Prestressed Concrete" course
8. Changing of CEOs, COs and mapping in "Bridge Engineering" course
9. Addition of CEOs, COs and changing of prerequisite courses, separating the unit 3 topics into unit 3 and unit 4 and merging of topics in unit 4 into unit 5 in "Rehabilitation and Retrofitting of Structures" course.
10. Inclusion of field identification of soils and latest methods in unit 1, in "Soil Mechanics" course.
11. Modifications of CEOs and COs in "Foundation Engineering" course
12. Inclusion of the topics: Dewatering after construction, control of surface water, well pointing in deep excavation, drainage on slopes, electro kinetic dewatering system instead of seepage analysis for two dimensional flow – fully and partially penetrating slots in homogeneous deposits (simple cases only) in unit 2, components of reinforced earth, soil nailing and design of geosynthetic reinforced earth walls in unit 5 of "Ground Improvement Techniques" course.
13. Removing the topics on effects of size, depth and shape of footings, water table and types of foundation in unit 1 (Shallow Foundations), inclusion of 3D consolidation settlement in settlement of foundation topic, and removing of repeated topics (pile load test, negative skin friction) in unit 2 (Pile Foundation), inclusion of topics on dynamic pile capacity – simplex and janbu methods, design of simple R.C.C piles in "Advance Foundation Engineering" course.
14. Modification of CEOs and COs in "Soil Dynamics and Machine Foundation" course.
15. Modification of CEOs, COs in "Geotechnical Engineering Lab" course.
16. Inclusion of topic on geophysical studies in "Engineering Geology Lab" course
17. Inclusion of new theory course on "Fluid Mechanics and Hydraulic Machinery" by combining the syllabus of "Fluid Mechanics – I" and "Fluid Mechanics – II" and also inclusion of latest measuring devices to measure flow rate in "Fluid Mechanics and Hydraulic Machinery" course

18. Inclusion of topics on groundwater, ground water hydrology, steady state well hydraulics and aquifers, application of Darcy's law in unit 3, S-Curve unit hydrograph and Muskingum's method in unit 4 in "Engineering Hydrology" course.
19. Removing of topics on permeability and differential equation governing groundwater flow from unit 1 and leaky aquifer from unit 2, inclusion of effects of sea water intrusion in unit 3, change of title of the unit 4 as "Artificial Recharge of Groundwater", change of title of the unit 5 as "Groundwater Exploration", inclusion of groundwater exploration topic in unit 5 in "Ground Water Development & Management" course.
20. Inclusion of latest techniques of harvesting in "Watershed Management" course
21. Inclusion of exercise on determination of coefficient of discharge through small orifice by variable head method in "Fluid Mechanics & Hydraulics Lab" course
22. Introduction of a theory course on "Irrigation Engineering" in place of "Water Resources Engineering" in SVEC14
23. Addition of new courses on "Building Materials and Construction Technology" and "Concrete Technology" in place of "Building Materials and Concrete Technology" course
24. Inclusion of new unit on "Construction Planning and Organization" in "Construction Planning and Project Management" course
25. Addition of a lab course on "Building Materials and Construction Technology"
26. Introduction of a theory course on "Construction Planning and Project Management" in place of "Construction, Planning and Project Management" in SVEC14
27. Renaming theory course on "Estimation, Costing & Valuation" to "Estimation and Quantity Surveying"
28. Exclusive lab courses on "Concrete Technology" and "Highway Engineering" in place of "Concrete and Highway Materials Lab" in SVEC14
29. Merging of "Transportation Engineering" and "Traffic Engineering" courses as one subject as "Highway and Traffic Engineering" and shifting of highway drainage topic to "Pavement Construction and Maintenance course".
30. Removing topics on importance of different branches of geology, common types of soils topic and addition of geological reports for different phases of site investigation in the unit 1, economic minerals topic and addition of engineering classification of weathered rock masses from unit 2, addition of topics on civil engineering applications and structural geology maps and problems concepts in unit 3, removing of springs topic in unit 4, removing of types of dams and inclusion of geological consideration at bridges site topic in unit 5 in "Engineering Geology" course.

31. Introduction of theory courses on "Highway and Traffic Engineering" and "Railway, Airport and Harbour Engineering" in place of "Transportation Engineering-I and II" in SVEC14.
32. Inclusion of the content on biomedical waste management – incineration and pyrolysis in the unit 5 of "Solid Waste Management" course
33. Inclusion of topics: introduction to life cycle analysis in unit 1, watershed management schemes in unit 3, preparation of EMP report, environmental management systems in unit 5 in "Environmental Impact Assessment and Management" course
34. Inclusion of scope, working principle and function of screen chamber, grit chamber and primary sedimentation tank in the unit 2, introduction of pollution characteristics, toxic chemicals, treatments – equalization, neutralisation, membrane systems, oxidation and reduction systems, thermal reduction, air stripping in the unit 3, Combining the units 4 and 5 and addition of refineries and dairy units in the unit 4, inclusion of waste minimisation as unit 5 in "Industrial Waste Water Treatment" course.
35. Inclusion of the experiments on determination of colour, fluorides and bacterial examination tests in "Environmental Engineering Lab" course
36. Shifting of compass surveying from unit 2 to unit 1, shifting of computation of areas and volumes from unit 1 to unit 4, inclusion of plane table surveying in "Surveying" course.
37. Removing of introduction from the unit 1 title, fundamental concepts of photogrammetry, techniques of photo interpretation in unit 1; basic concepts and foundation of remote sensing, converging of evidence and spectral regions in unit 2; rearrangement of topics in unit 3; inclusion of database models in unit 4 of "Geospatial Technology" course.
38. Inclusion of new exercises on setting out works for buildings and pipe lines, gradient and differential height between two inaccessible points using total station, stake-out using total station, contouring using total station, determination of area of irregular figure by using planimeter in "Surveying Lab" course.

Action taken report:

Based on the Faculties feedback, following changes were incorporated in the SVEC16:

1. Theory and lab courses on "Programming in C" were introduced in SVEC16 in place of "Programming in C and Data Structures Lab" in SVEC14
2. Lab course on "MATLAB Practice for Civil Engineers" was introduced in SVEC16 compared to SVEC14

3. A theory course on "Environmental Studies" was introduced in SVEC16 in place of "Environmental Sciences" in SVEC14
4. A lab course on "Civil Engineering Software" was introduced in SVEC16 compared to SVEC14
5. A theory course on "Prestressed Concrete" was moved to program elective in SVEC16 from program core in SVEC14
6. Considered limit state design method alone in the design of welded plate girders (as per IS 800-2007) in unit 1, shifted the topic on plastic analysis from this course to "Structural Analysis-II" course, and added topics on steel-concrete composite construction and grillage foundation in "Advanced Steel Structures" course.
7. Rewritten CEOs, COs; Renamed unit 1, added of topics in unit 2 and unit 3, rearranged topics in unit 5 and updated with revised IS code in "Prestressed Concrete" course
8. CEOs, COs and mapping were modified in "Bridge Engineering" course
9. Added CEOs, COs and changed prerequisite courses, separated the unit 3 topics into unit 3 and unit 4 and merged topics in unit 4 into unit 5 in "Rehabilitation and Retrofitting of Structures" course.
10. Included field identification of soils and latest methods in unit 1, in "Soil Mechanics" course.
11. Modified CEOs, and COs in "Foundation Engineering" course
12. Included the topics: dewatering after construction, control of surface water, well pointing in deep excavation, drainage on slopes, electro kinetic dewatering system instead of seepage analysis for two dimensional flow-fully and partially penetrating slots in homogenous deposits (simple cases only) in unit 2, components of reinforced earth, soil nailing and design of geosynthetic reinforced earth walls in unit 5 in the "Ground Improvement Techniques" course.
13. Removed the topics on effects of size, depth and shape of footings, water table and types of foundation in unit 1 (Shallow Foundations), included 3D consolidation settlement in settlement of foundation topic, and removed repeated topics (pile load test, negative skin friction) in unit 2 (Pile Foundation), included topics on dynamic pile capacity – simplex and janbu methods, design of simple R.C.C piles in "Advance Foundation Engineering" course.
14. Modified CEOs, and COs "Soil Dynamics and Machine Foundation" course.
15. Modified CEOs, COs in "Geotechnical Engineering Lab" course.
16. Geophysical studies topic was included in "Engineering Geology" Lab course

17. New theory course on "Fluid Mechanics and Hydraulic Machinery" was introduced by combining the syllabus of "Fluid Mechanics – I" and "Fluid Mechanics – II" and also introduced latest measuring devices to measure flow rate in "Fluid Mechanics and Hydraulic Machinery" course
18. Included topics on groundwater, ground water hydrology, steady state well hydraulics and aquifers, application of Darcy's law in unit 3, S-Curve unit hydrograph and Muskingum's method in unit 4 in "Engineering Hydrology" course.
19. Removing of topics on permeability and differential equation governing groundwater flow from unit 1 and leaky aquifer from unit 2, effects of sea water intrusion was introduced in unit 3, title of the unit 4 was changed as "Artificial Recharge of Groundwater", title of the unit 5 was changed as "Groundwater Exploration", groundwater exploration topic was included in unit 5 of "Ground Water Development & Management" course.
20. Introduced latest techniques of harvesting in "Watershed Management" course
21. Introduced exercise on determination of coefficient of discharge through small orifice by variable head method in "Fluid Mechanics & Hydraulics Lab" course
22. A theory course on "Irrigation Engineering" was introduced in SVEC16 in place of "Water Resources Engineering" in SVEC14
23. "Building Materials and Construction Technology" and "Concrete Technology" were offered as new courses in place of "Building Materials and Concrete Technology"
24. New unit on "Construction Planning and Organization" included in "Construction Planning and Project Management" course
25. Lab course on "Building Materials and Construction Technology" was introduced in SVEC16 compared to SVEC14.
26. A theory course on "Construction Planning and Project Management" was introduced in SVEC16 in place of "Construction, Planning and Project Management" in SVEC14.
27. Renamed theory course on "Estimation, Costing & Valuation" to "Estimation and Quantity Surveying".
28. Lab courses on "Concrete Technology" and "Highway Engineering" were introduced in SVEC16 in place of "Concrete and Highway Materials Lab" in SVEC14.
29. Merged courses on "Transportation Engineering" and "Traffic Engineering" into one course as "Highway and Traffic Engineering" and shifted the highway drainage topic to "Pavement Construction and Maintenance course"

30. Importance of different branches of geology, common types of soils topic were removed and geological reports for different phases of site investigation were included in the unit 1, economic minerals topic was removed and engineering classification of weathered rock masses was included in unit 2, civil engineering applications was included and structural geology maps and problems concepts were included in unit 3, springs topic was removed from unit 4, types of dams was removed and geological consideration at bridges site was included in unit 5 of "Engineering Geology" course.
31. Theory courses on "Highway and Traffic Engineering" and "Railway, Airport and Harbour Engineering" were introduced in SVEC16 in place of Transportation Engineering-I and II in SVEC14.
32. The content on "Biomedical Waste Management – Incineration and Pyrolysis" was included in the unit 5 in "Solid Waste Management" course
33. Topics included: introduction to life cycle analysis in unit 1, watershed management schemes in unit 3, Preparation of EMP report, environmental management systems in unit 5 of "Environmental Impact Assessment and Management" course.
34. Introduced scope, working principle and function of screen chamber, grit chamber and primary sedimentation tank in the unit 2, introduced pollution characteristics, toxic chemicals, treatments – equalization, neutralisation, membrane systems, oxidation and reduction systems, thermal reduction, air stripping in the unit 3, combined the units 4 and 5 and added refineries and dairy units in the unit 4, waste minimization was included as unit 5 in "Industrial Waste Water Treatment" course.
35. Included the experiments on determination of colour, fluorides and bacterial examination tests in "Environmental Engineering Lab" course.
36. Compass surveying was shifted from unit 2 to unit 1, computation of areas and volumes shifted from unit 1 to unit 4, plane table surveying was included in "Surveying" course.
37. Introduction was removed from the unit 1 title, fundamental concepts of photogrammetry was removed, techniques of photo interpretation was removed in unit 1; basic concepts and foundation of remote sensing was removed, converging of evidence was removed, spectral regions was removed in unit 2, topics were rearranged in unit 3; database models was included unit 4 "Geospatial Technology" course
38. New exercises, setting out works for buildings and pipe lines, gradient and differential height between two inaccessible points using total station, stake-out using total station, contouring using total station, determination of area of irregular figure by using planimeter were included in 'Surveying Lab' course.

B. Tech. in Electrical and Electronics Engineering

Feedback report from Alumni:

Feedback was taken from 2012-2013 and 2014-2015 Passed out batches during the academic years 2014-15 and 2015-16 respectively. About 40% of them have responded. Their feedback was summarized and are as follows:

1. More practical oriented courses such as Electrical and Electronics Workshop Practice should be introduced for understanding the wiring in domestic and industrial sectors.
2. Mathematical courses in-line with competitive exams such as GATE could be introduced.
3. Exposure on modern software tools is required.
4. More practical exposure on Transformers, AC Machines and Special Machines should be provided in-line with industry.
5. A course to enhance the soft skills among the students should be introduced in the curriculum.
6. Some courses shall be dedicated on the Indian history, heritage and culture as these courses would help students preparing for Civil services and ESE exams.

Action taken report:

1. A course "Electrical and Electronics Workshop Practice" was introduced for providing more practical exposure and understanding the domestic and industrial wiring.
2. The course "Transformation Techniques and Partial Differential Equations" was introduced as a new course to make the students competent in exams such as GATE and other competitive exams.
3. New lab courses "Transformers and Induction Machines Lab", "Synchronous Machines Lab" and "Special Electrical Machines" were exclusively introduced to give better conceptual & practical understanding and industrial exposure on the machines through study, analysis and design of suitable control strategy.
4. A new laboratory course "Soft Skills Lab" was introduced to enhance the soft skills among the students.
5. New courses such as "Indian Constitution", "Indian Economy", "Indian Heritage and Culture" and "Indian History" were introduced as open electives, as these courses would be useful for students while preparing for UPSC examinations.

Feedback report from Students:

An exit survey was conducted on students pass out during 2014-2015 and 2015-2016 academic years during the academic years 2014-15 and 2015-16 respectively. 80% of them have responded and their feedback was recorded and is consolidated as detailed below

1. More Interdisciplinary courses such as Operating Systems, Object Oriented Programming should be introduced to enable the students to succeed in software oriented jobs.
2. Provision must be made to learn some of the foreign languages as a part of the curriculum.
3. A course on energy conversion systems using advanced Power Electronics Converters which are used exclusively in renewable energy sources conversion should be introduced.
7. A dedicated course on data structures is required.

Action taken report:

1. The interdisciplinary course "Object Oriented Programming" was introduced to make the students more employable which are the present need of software industry.
2. The courses on French and German languages were introduced as new courses with an open choice to the student.
3. A new course "Analysis of Power Electronics Converters" was introduced into the curriculum to impart modern energy conversion technologies among the students.
4. New courses "Foundations of Data Structures" and its associated laboratory course "Foundations of Data Structures Lab" were introduced exclusively to provide in-depth knowledge and practical exposure on the concepts that would be helpful for software aspirants.

Feedback report from Faculty members:

Feedback was taken from all the Faculty members who taught the courses of the program and their suggestions are as follows:

1. The syllabus of the course "Signals and Networks" shall be redesigned in-line with the syllabus of GATE and ESE.
2. Concepts of Micro Grids and Distributed Generation can be introduced.
3. As the courses in Power System were dealt conceptually, it would be more appropriate to introduce a lab courses for more practical exposure.

4. Courses in Computer domain like Operating Systems shall be taught as such courses would help students facing interviews in software industry.
5. The concepts of nano-science and technology could be provided to the students as it is modern days emerging technology.
6. Some courses should be dedicated to improve the personality of the student and should learn the administrative skills as life skills.
7. Courses like Sensors and Signal Conditioning can be introduced as these would be useful for developing projects and acquiring the required industrial skills.
8. Interdisciplinary courses on PLCs and a laboratory courses on embedded systems may be introduced which would be useful for doing projects and would create an employability opportunity in core industries.
9. A course on "Advanced Processors and Microcontrollers" should be introduced which would be useful for programming the microcontrollers.
10. More Interdisciplinary courses on IC applications should be introduced.
11. Courses on environmental sustainability may be introduced.

Action taken report:

1. The syllabus of the course "Signals and Networks" have been revised in-line with the syllabus of competitive exams such as GATE and ESE and was introduced as "Signals, Systems and Networks". Also a lab course "Signals and Networks Lab" was introduced to provide better understanding on the concepts.
2. Concepts of Micro grid, Distributed Generation were introduced into the course "Generation of Electric Power".
3. New laboratory courses "Power System – I Lab" with software experiments and another lab course "Power System – II Lab" with practical experimentation was introduced to provide more practical exposure on the power system practices.
4. A new course "Operating Systems" was introduced into the curriculum for educating and training software industry aspirants.
5. A new course "Sensors and Signal Conditioning" was introduced which would be useful for the students to develop projects and acquiring the industrial requirements.
6. A new course "Programmable Logic Controllers" and a lab course "Embedded Systems Lab" were introduced and the syllabus was framed in-line with the academic and industrial requirements.
7. A new course "ARM Processors and PIC Microcontrollers" was introduced to make the students exposed to controllers being used in industry.

8. A new laboratory course "Linear and Digital ICs lab" was introduced to give better understanding and practical exposure on the concepts.
9. A course on "Green Technologies" was introduced to educate the importance of environmental sustainability for future. Also the relevant pollution and control standards were introduced into the course "Environmental Pollution and Control".

B. Tech. in Mechanical Engineering

Feedback report from Alumni:

Not applicable as the First Batch passed out in the Academic year 2014-2015

Action taken report:

Not applicable.

Feedback report from Students:

The feedback from the students of 2014-15 and 2015-16 passed out batches was collected and summarized below.

1. Suggested to incorporate soft skills oriented Lab courses to improve the hands on exposure for students to hone their theoretical skills.
2. Suggested to include more practical component.
3. Suggested to introduce practical courses associated with Industrial Engineering subjects.
4. Suggested to introduce IT related courses

Action taken report:

Based on the feedback the following actions were taken.

1. Introduced Soft skills lab to impart practical aspects of soft skill development.
2. Introduced three laboratory courses in every semester except in IV B. Tech, II Semester.
3. Introduced Industrial Engineering Lab in SVEC16 regulations as most of the industrial engineering subjects are theoretical in nature.
4. Introduced Data base Management System, JAVA Programming, Computer Graphics and Multimedia in SVEC16.

Feedback report from Faculty members:

The feedback from all the faculty who taught the courses of the program was collected in the academic year 2014-15 and 2015-16, and summarized as follows.

1. Suggested to broaden ambit of machine tools subject by introducing non-conventional machining processes.
2. Suggested to make Refrigeration and Air conditioning a compulsory subject rather than an elective subject.
3. Suggested to split the course 'Material science and Metallurgy' into two different courses
4. Suggested to incorporate industry relevant courses.
5. Suggested to integrate courses 'Manufacturing Technology-I', 'Manufacturing Technology-II' as a single course.
6. Suggested to introduce heat transfer lab and dynamics lab separately.
7. Suggested to introduce Computational Fluid Dynamics concepts in course.
8. Suggested following improvements in the existing syllabus of various courses.
 - Metallurgy & Material Science: Introduce Melting of metals, surface hardening methods and material characterization techniques.
 - Dynamics of Machines: Include application of fly wheel, characteristics of governor and torsional vibrations
 - Fluid Mechanics: Include air vessels
 - Design of Machine Elements-II: Include design of power transmission systems.

Action taken report:

Based on the feedback from the faculty the following actions were incorporated in SVEC-16.

1. In place of Machine tools subject offered in SVEC14, a new course "Machine Tools & Modern Machining Process" has been introduced with addition of non – conventional method of machining in SVEC16 regulations.
2. Introduced Refrigeration and Air conditioning as compulsory subject in SVEC16 curriculum as there is more chance of employability in the field of HVAC.
3. Introduced two different courses entitled 'Engineering Materials', 'Engineering Metallurgy', instead of 'Material science and Metallurgy'.
4. Introduced 'Hydraulics and Pneumatics' as an elective subject in SVEC16 curriculum.
5. Introduced a single course 'Manufacturing Technology' instead of 'Manufacturing Technology-I', 'Manufacturing Technology-II'.

6. Introduced heat transfer lab and dynamics & vibrations Lab in SVEC16 curriculum.
7. Computational Fluid Dynamics concepts were introduced in 'CAD and simulation Lab'.

B. Tech. in Electronics and Communication Engineering

Feedback report from Alumni:

Feedback was taken from 2012-13 and 2013-14 Passed out batches during the academic years 2014-15 and 2015-16. About 40% of them responded to our survey. Their feedback is summarized as follows:

1. Advanced knowledge in latest technologies has to be gained through the introduction of new courses in order to satisfy the industrial needs.
2. Suggested to introduce more Laboratory courses in order to improve skills.
3. To learn new topics and extend current knowledge, e-learning concept has to be Introduced.
4. To work around the globe the courses like German Language, French Language can be introduced as open electives.

Action taken report:

1. New courses like RF Engineering, Nanoelectronics, Low Power CMOS VLSI Design, Information Theory and Coding were included to fulfill the industrial needs.
2. The number of Laboratory courses in each semester was increased.
3. MOOC was included in the curriculum.
4. Courses like German Language, French Language were introduced as open electives.

Feedback report from Students:

The students of 2014-15 and 2015-16 Passed out batches were asked to give feedback for the curriculum improvement. About 80% of the students responded and their feedback is summarized below:

1. More Interdisciplinary electives can be included.
2. Open electives related to latest technology, German and French languages can be included.
3. Due to increasing demand in nanoelectronics, a new course on it can be included.

4. Concepts of computerized accounting can be introduced in Managerial Economics and Principles of Accountancy.

Action taken report:

1. More Interdisciplinary electives were introduced to improve the standard of the program.
2. Courses like Green Technologies, Introduction to Nanoscience and Technology, French and German languages were included under Open electives.
3. New courses like RF Engineering, Nanoelectronics, and Low Power CMOS VLSI Design were included.
4. Computerized accounting was introduced in Managerial Economics and Principles of Accountancy.

Feedback report from Faculty members:

Feedback report was taken from all the Faculty members who taught the courses of the program during 2014-15 and 2015-16. Their suggestions are summarized below:

1. Suggested to allocate one complete semester for Project work to improve the quality of work.
2. Open Elective course on "Green Technologies" may be introduced.
3. Open Elective course on "Nano-Science and Technology" may be introduced.

Action taken report:

1. The II Semester in IV B.Tech was completely allocated for Project work.
2. Open Elective course on "Green Technologies" was introduced.
3. Open Elective course on "Nano-Science and Technology" was be introduced.

B. Tech. in Computer Science and Engineering

Feedback report from Alumni:

Feedback was taken from 2012-2013 and 2013-2014 passed out students during the academic year 2014-2015 and 2015-2016 respectively. About 43% of the Alumni responded to the request. The summary of the feedback is as follows:

- Practical knowledge on network concepts is essential
- Real time experience in cloud computing environment enhances employability
- Courses like IOT, VANET and green technologies can be introduced
- Course which helps in enhancing personality development of students was essential to improve employability

- Courses to meet the present industrial requirement was needed
- Courses which help in preparing for Civil Services can be introduced
- Foreign languages can be introduced which may help students when they go abroad
- Course which help to improve entrepreneur skills of students was essential
- Ethical hacking subject can be introduced
- Course which help in performing better in interviews was required
- Subject based on image processing may be introduced

Action taken report:

The following actions were taken to improve the curriculum:

- Lab course for network subject was introduced to enable students to do practice sessions on network concepts.
- Cloud Computing lab was introduced with tools like IBM Bluemix Cloud, Amazon WebService, MS-Azure.
- IOT was introduced as professional elective and green technologies as open elective
- Personality Development course was introduced as open elective
- Courses like IOT, Green technologies, Nanoscience and Technology were introduced
- Courses such as Indian Constitution, Indian Economy, Indian History, Indian Heritage and Culture were introduced as open electives
- Foreign languages such as French and German languages were introduced to help students who had plan to go to foreign countries.
- Business Communication and Career Skills course was introduced
- Ethical hacking subject was introduced
- Soft skills lab course was introduced
- Computer Vision course was introduced

Feedback report from Students:

Feedback was taken from the students who were passing out during the academic years, 2014-2015 and 2015-16. About 81% of the Students responded to the request. The summary of the feedback is as follows:

- Any other programming language courses can be introduced to enhance the programming skills of the students
- Course which helps to model the problem identified and to simulate it was needed
- Many students suggested to include new courses which help in enhance the knowledge and meet the industry requirements.
- Practical sessions in computer networks, cloud computing, big data enhance the knowledge of the students
- More courses can be introduced in diversified fields
- Courses which enhance programming skills can be introduced
- Hands-on on cloud computing technology will help students to learn the concepts practically

Action taken report:

Based on feedback received from the students, the following actions were taken:

- Python and Java programming courses and corresponding lab courses were introduced
- Modelling and Simulation Course was introduced
- Courses like Python and Java Programming were introduced as core courses, data communications, optimization techniques, Internet of Things were introduced as professional electives, green technologies, Nanoscience and Technology were introduced as open electives.
- Cloud computing, Big data and Computer Networks lab were introduced
- Courses like Philosophy of Education, Public Administration, Building Maintenance and Repair were introduced
- Principles of programming languages was introduced to improve programming skills in students
- Cloud Computing lab was introduced

Feedback report from Faculty members:

Feedback was taken from all the faculty members who taught the courses of the program during the academic years 2014-2015 and 2015-16. The suggestions are summarized below:

- Concepts like virtual memory can be removed as it will be discussed in operating system and addressing modes can be added in computer organization course
- B-Tree Index Files could be included in the Database Management Systems course

- Finding the maxima and minima from unit -2, NP-hard and NP-complete problems can be eliminated from design and analysis of algorithms
- Object oriented programming can be taught using a specific language
- Topics such as online analytical processing, concepts related to cluster analysis like grid based method, data mining trends can be added in data warehousing and data mining subject
- Revision of Mobile Computing course, theory of computation course was needed
- Operating system and Unix programming course can be isolated
- Number of Case studies in object oriented analysis and design can be increased/enhanced
- Composite transformations in 3-d geometric topic can be removed from computer graphics course because of complexity
- Allocation of frames can be removed and Signals, Forks, i-node, File Descriptors can be added in operating systems
- Process automation, Lifecycle Expectations, Pragmatic Software Metrics Automation, concepts related to tailoring the process topic can be removed and agile management can be added
- Concepts based on interpreters and processing various statements can be added in compiler design course
- Lab for computer networks can be introduced
- Wireless networks course can be introduced

Action taken report:

Based on feedback received from the faculty, the following actions were taken:

- Instruction formats, addressing modes were added as they are essential topics and floating-point arithmetic operations was removed because of complexity, Serial communication, Introduction to Peripheral Component Interconnect (PCI) bus, virtual memory was deleted from Computer organization subject
- B-Tree Index Files was included in the Database Management Systems course
- Finding the maxima and minima from unit -2, NP-hard and NP-complete problems were eliminated from Design and Analysis of Algorithms Course
- Object oriented programming is replaced with Object oriented programming using C++

- Online analytical processing, concepts related to cluster analysis like grid based method, data mining trends were added in data warehousing and data mining course
- Novel applications, Limitations, Introduction to 3G and 4G Communications Standards: WCDMA, LTE, WiMAX, concepts related to wireless LAN, Caching invalidation mechanisms, context aware computing, MANET and WAP were added and GPRS, concepts related to mobile synchronization and mobile devices were removed in mobile computing
- The equivalence of DFA and NDFA, Conversion of epsilon-NFA to NFA and DFA, Mealy and Moore models, Identity rules, Pumping lemma, Chomsky hierarchy of languages, the model of linear bounded automaton for regular languages, Applications of the pumping lemma, undecidability were removed from Theory of Computation course
- Operating system and Unix Internals were made as isolated courses. Linux programming was introduced in place of Unix Internals. Operating system lab course was revised and Linux programming lab was introduced
- Case Studies on Online student course registration system for university, Hospital Management were included in object oriented analysis and design course
- Composite transformations in 3-d geometric topic was removed from computer graphics course
- Allocation of frames were removed and Signals, Forks, i-node, File Descriptors were added in operating systems course
- Process automation, Lifecycle Expectations, Pragmatic Software Metrics Automation, concepts related to tailoring the process topic were removed and agile management was added
- Interpretation- Interpreters, Recursive, interpreters, Iterative interpreters, Preprocessing the intermediate code, Preprocessing of expressions, Preprocessing of if-statements and 'go to' statements, Preprocessing of routines were added in compiler design course
- Networks Lab was introduced to have hands-on experience for students
- Wireless networks course was introduced

B. Tech. in Electronics and Instrumentation Engineering

Feedback report from Alumni:

The feedback is collected from 2012-13 and 2013-14 & passed out students during, 2014-15 and 2015-16 academic years. About 40% of the alumni gave their feedback. The following are the suggestions given by Alumni.

1. More emphasis has to be given on laboratory courses.
2. Include interdisciplinary courses to enhance employability.
3. Design knowledge on complete system is needed, instead of component wise design.

Action taken report:

Based on the feedback received from Alumni the following new lab courses and interdisciplinary courses were included in the curriculum to improve practical knowledge thereby enhance the employability of the students in core companies.

1. The number of laboratory courses was increased from 2 to 3 in every semester.

The following were the new labs

- Network Analysis Lab
- Control Systems Design Lab
- Industrial Instrumentation Lab

2. The following interdisciplinary courses were introduced.

- Operating Systems
- Hydraulics and Pneumatics
- Mechatronics
- Instrumentation System Design

3. A course on System design using Microcontrollers was introduced to provide knowledge on designing of a complete system.

Feedback report from Students:

Feedback has been taken from 2014-15 & 2015-16 passed out students. About 85% of the students have given their feedback

1. The students suggested including advanced microcontrollers which are being used currently in industries that would also be helpful to develop curriculum projects.
2. Include applications of mathematical modeling in engineering.

Action taken report:

1. Based on the feedback from students the course Microprocessors & Microcontrollers is replaced with ARM Processors & PIC Microcontrollers and Microprocessors & Microcontrollers lab is replaced with ARM Processors & PIC Microcontrollers Lab.
2. Applications of Differential equations is extended to several electrical oscillatory circuits in the course Multi Variable Calculus and Differential Equations.

Feedback report from Faculty members:

Feedback was taken from all the faculty who taught the subjects of the program and the salient points are:

1. The course Instrumentation in Process Industries can be refined, so that the student will gain complete knowledge on a particular industry.
2. More emphasis should be given on biomedical instrumentation as more research is being carried out in this area.
3. The contents in the course Microprocessors and Microcontrollers and its corresponding lab must be replaced with advanced microprocessors and microcontrollers.
4. Neural networks and Fuzzy logic applications in control systems need to be included.
5. Rearrange CMOS, HDL Programming and Verilog in LDICA course.
6. Rearrange the topic of sampling in Signals and Systems course.
7. Since the industries are expecting more practical knowledge from the students, enhance the number of laboratory courses.

Action taken report:

Based on the feedback from the faculty who handled the subjects of the program, the following changes were made.

1. The course Instrumentation in process industries is renamed as Instrumentation in petrochemical industries by focusing more on a particular industry.
2. A new course Biomedical Signal Processing is introduced to enhance research in the field of biomedical instrumentation.
3. ARM Processors and PIC Microcontrollers theory and Lab were offered in SVEC16 regulations as these processors and controllers were being currently used in industries.
4. Introduced a new course Intelligent Control to provide knowledge on applications of Neural Networks and Fuzzy logic in controller design.

5. In Linear and Digital IC Applications course the HDL programming and Verilog concepts are rearranged.
6. Sampling topic was merged in unit V with Z-Transform to avoid confusion in understanding.
7. The number of laboratory courses was increased from 2 to 3 in every semester.

The following were the new labs

- Network Analysis Lab
- Control Systems Design Lab
- Industrial Instrumentation Lab

B. Tech. in Information Technology

Feedback report from Alumni:

Feedback was received from 40% of alumni belonging to 2012-13 and 2013-14 passed out batches and they:

1. Recommended to undertake project work and Apps using Free and Open Source Software (FOSS) tools.
2. Suggested to introduce industry oriented course on Internet of Things.
3. Suggested to include case studies and mini projects as a part of curriculum lab cycle.
4. Recommended to encourage students towards e-learning on latest trends in Computer Science and Information Technology.
5. Requested to introduce more industry oriented programming laboratory courses such as Cloud Computing lab and Big Data Technologies lab.

Action taken report:

1. Department has conducted Skill Development Programs (SDP) on Big Data Technologies, Cloud Computing Technologies, Advanced Software Engineering tools and Internet of Things and also students have developed Apps on IoT, Cloud, Web Apps and Big Data using FOSS tools.
2. Industry oriented courses were introduced such as Internet of Things, Cloud Computing lab, Big Data Technologies lab and Soft Skills lab.
3. Case Studies and Mini projects as a part of curriculum lab cycle were included in lab courses such as Programming in C, Java Programming, Object Oriented Analysis and Design, Web Technologies, Knowledge Engineering, Big Data Technologies and Mobile Application Development.

4. The students were encouraged to attend on-line programs such as IBM Bluemix Cloud, Spoken Tutorial Project conducted by IITB, QEEE programs conducted by IITM and programs conducted by Andhra Pradesh State Skill Development Corporation (APSSDC) and APPSC-NASSCOM.
5. Introduced more industry oriented programming laboratory courses on Cloud Computing lab and Big Data Technologies lab.

Feedback report from Students:

Feedback was received from 80% of students belonging to 2014-15 and 2015-16 passed out batches and they:

1. Requested to offer separate courses exclusively on Object Oriented Programming through C++ and Java Programming, Operating System laboratory and Python programming.
2. Recommended to introduce a laboratory course on Computer Graphics and Multimedia laboratory.
3. Requested to reduce syllabus of Data Structures and Software Engineering courses.
4. Suggested to include more practical components.
5. Suggested to introduce Personality Development, German Language and French Language courses as electives.
6. Requested to introduce a separate course on Soft skills lab.

Action taken report:

1. Introduced Object Oriented Programming through C++ in I B.Tech II semester, Operating System laboratory in II B.Tech I semester and Python programming for III B.Tech II semester.
2. Offered a laboratory course on Computer Graphics and Multimedia laboratory in III B.Tech I semester.
3. Removed Basics of Data Structures and File Organization concepts in Data Structure, System Models and User Interface Design concepts in Software Engineering courses respectively.
4. Introduced three laboratory courses in every semester except in IV B. Tech, II Semester.
5. Introduced Personality Development, German Language and French Language courses as open electives.
6. Offered a course exclusively on Soft skills lab in II B.Tech, II Semester.

Feedback report from Faculty members:

Feedback was received from all the members faculty who taught the courses of the program and they:

1. Suggested to introduce courses such as Advanced Databases, Python Programming, Knowledge Engineering Laboratory and Massive Online Open Course (MOOC).
2. Suggested to revise syllabi of Data Warehousing and Data Mining, Big Data, Cloud Computing, Software Engineering and Database Management System courses.
3. Requested to remove overlapping topics like Graph Theory from courses Discrete Mathematical Structures, Data Structures and Design and Analysis of Algorithms, OOP concepts from Object Oriented Programming through C++ and Java Programming courses.
4. Suggested to include MySQL database practice also in Database Management Systems Lab.

Action taken report:

1. Introduced latest trends of Information Technology courses like Advanced Databases, Python Programming, Knowledge Engineering Laboratory and Massive Online Open Course (MOOC).
2. Revised Data Warehousing and Data Mining, Big Data, Cloud Computing, Software Engineering and Database Management System courses.
3. Removed overlapping topics like Graph Theory from courses Discrete Mathematical Structures, Data Structures and Design and Analysis of Algorithms, OOP concepts from Object Oriented Programming through C++ and Java Programming courses.
4. Included MySQL database in Database Management Systems Lab.

B. Tech. in Computer Science and System Engineering**Feedback report from Alumni:**

After summarizing the feedback collected from 44% of Alumni respondents of 2012-13 & 2013-14 batches during the academic years 2014-15 & 2015-16 , following are few valuable suggestions made by them for SVEC-16 regulations

- New paradigms and concepts for improved teaching-learning process can be introduced for leveraging self-learning among students
- Suggested to introduce new courses like Business Analytics and Windows Programming

- Suggested to introduce courses on foreign languages
- A Course on Personality development and discipline was suggested to be included in the curriculum
- Concepts of inducing security into software was suggested to be introduced

Action taken report:

Based on suggestions from Alumni following actions were taken

- MOOC course was introduced into the curriculum to facilitate self-learning
- New courses in emerging areas like Business Analytics and Windows Programming were introduced.
- Introduced German and French Languages in Open electives
- Personality development course was introduced into the curriculum
- Secure Software Engineering Course was introduced into course structure

Feedback report from Students:

After summarizing the feedback collected from 2014-15 & 2015-16 passed out student batches, 84% of students responded and the following are few valuable suggestions made by them for SVEC-16 regulations

- It was requested to introduce courses in advanced subjects to enhance Skill development and also to broaden horizon on the domain
- Suggested to include a course on Python Programming
- Subject on Wireless Networking concepts was suggested
- More emphasis was sought on Systems Engineering courses

Action taken report:

Based on suggestions from students following action was taken

- New courses were introduced in the curriculum such as
 - Data Analytics
 - Internet of Things
- Python Programming was introduced into the curriculum
- Wireless Networks course was introduced into course structure
- Included Systems Engineering and System Modeling and Simulation Lab courses in the curriculum

Feedback report from Faculty members:

After summarizing the feedback collected during 2014-15 & 2015-16 academic years from all faculty respondents, following are few valuable suggestions made by them for SVEC-16 regulations

- In the program curriculum, combination of labs like 'OOAD and Web Programming', 'Operating Systems and System Software Lab' are becoming dreary when studied as single lab in a given semester
- Suggested to exclude data structures concepts from Problem solving and Computer Programming to avoid redundancy
- Suggested to introduce more programming language courses
- Suggested to study concepts of Systems Software course through UNIX/Linux platforms
- Suggested to introduce new courses into the curriculum like Information Retrieval Systems, Intelligent Computing Systems and Image Processing
- In System Software course, it is suggested to include algorithms to modify and manipulate the context of a process
- In Cryptography and Network Security course it was suggested to include stream ciphering techniques
- It was suggested in Operating Systems course that few concepts related to i-node, file descriptors can be unified
- In Computer Networks Course it was suggested to include topics on extensibility of network addressing.
- It was suggested to include topics on B+ Tree file indexing in Database Management Systems
- Suggestion was made in Data Warehousing and Data Mining course to include few Data Mining Applications
- In Design and Analysis of Algorithms course it was suggested to include topics of problem solving methods and types of problems
- Topics on Advances in Mobile Computing subject was suggested to be included

Action taken report:

Action taken on feedback from Faculty members

- Laboratories like 'OOAD and Web Programming' were split and offered as two separate laboratory courses in the new regulation as OOAD lab and Web

Technologies Lab, similarly it was followed for Operating Systems and System Software Lab as well.

- Excluded Data structures concepts from Problem solving and Computer Programming and replaced with a new introductory course on Programming in C
- Introduced Object Oriented Programming through C++ theory and Laboratory courses into the curriculum
- Course contents with respect to Systems Software was designed through UNIX/Linux platforms in the new regulations
- Introduced new courses into the curriculum like Information Retrieval Systems, Intelligent Computing Systems and Image Processing
- Algorithms related to manipulation of System context in a given process were included in System Software course
- In Cryptography and Network Security topics related to Stream Ciphering & RC4 are introduced
- Topics on i-node, file descriptors in Operating Systems course were included
- In Computer Networks course topics on IPV6 were included
- Topics on B+ Tree file indexing were included in Database Management Systems
- In Data Warehousing and Data Mining, topics on Spatial mining, Multi-media Mining and Text Mining Methods were included
- Concepts related to NP hard and NP complete problems were excluded from syllabus of Design and Analysis of Algorithms course
- Topics on 4G Mobile communication were incorporated in syllabus of Mobile Computing Course

Feedback report from Employer for all B. Tech. Programs:

Employer feedback is taken centrally. About thirty companies have visit our campus for recruitment of each of 2012-13 and 2013-14 passed out batches of our students. The feedback on curriculum is requested from these companies and also companies where our alumni are employed directly in the academic year 2014-15 and 2015-16. The salient features of feedback report are summarized below:

1. Companies such as Tata Consultancy Services, Wipro Technologies, Tech Mahindra, DST World Services, ADP, Syntel Inc, Oracle Financials, Cognizant suggested to include the following new courses in the relevant programs of computer sciences.
 - (a) Python programming
 - (b) Java and Linux programming

- (c) Internet of things
 - (d) Big-data technologies lab
 - (e) Secure software engineering
 - (f) Business analytics
2. Companies such as Redpine Signals Inc, Wipro Technologies, Amara Raja, TATA Communications suggested to include the following new courses in the relevant programs of electrical sciences.
- (a) PLCs
 - (b) Advanced microcontrollers
 - (c) RF engineering
 - (d) Nanoelectronics
 - (e) Information theory and coding
 - (f) Low power CMOS VLSI design
 - (g) Instrumentation system design
 - (h) ARM processors and PIC controllers
3. Companies such as BSCPL Infrastructure, My Home Constructions, Satya Vani Projects and Consultants suggested to include the following new courses in the branch of Civil Engineering.
- (a) Structural health monitoring
 - (b) Global positioning system
 - (c) Transport planning and management
 - (d) Highway construction maintenance

As first batch of Mechanical Engineering graduating in 2014-15, no employer feedback is available.

Action taken report:

Based on the employer feedback, new courses were included in the respective program as given below:

1. Courses on Structural health monitoring, Global positioning system, Transport planning and management and Highway construction maintenance are included in Civil Engineering.
2. Courses on Python programming and Java and Linux programming are included in Computer Science and Engineering.
3. Courses on Internet of things and Big-data technologies lab are included in Information Technology.
4. Courses on Secure software engineering and Business analytics are included in Computer Science and System Engineering.

5. Courses on PLCs and Advanced microcontrollers are included in Electrical and Electronics Engineering.
6. Courses on RF engineering, Nanoelectronics, Information theory and coding and Low power CMOS VLSI design are included in Electronics and Communication Engineering.
7. Courses on Instrumentation system design and ARM processors and PIC controllers are included in Electronics and Instrumentation Engineering.

M. Tech. in Computer Science

Feedback report from Alumni:

Feedback was taken from 2011-2012 and 2012-2013 passed out students during the academic year 2013-2014 and 2014-2015 respectively. About 42% of the Alumni responded to the request. The summary of the feedback is as follows:

- Lab for data mining was required
- Courses like big data can be made as core subjects and more electives can be introduced
- Course like computer vision might provide students with various opportunities
- Practical experience on cloud computing and Big data analytics will help students a lot
- IOT and its corresponding lab can be introduced
- labs can be provided for the courses like networks and data mining.

Action taken report:

Based on the feedback received, the following actions were taken:

- Database Management Systems & Data Warehousing and Data Mining Lab was introduced
- Cloud Computing and Big Data Analytics were made as core courses and Computer Vision and IOT were introduced as elective course by removing Advanced Software Engineering course.
- Computer Vision was introduced as an elective course
- Cloud computing and Big Data Analytics lab was introduced
- IOT was introduced as theory and also as an elective course only.
- Data Structures and Advanced Database Management Systems Laboratory was replaced with Database Management Systems & Data Warehousing and Data Mining Lab And Data Structures & Computer Networks Lab

Feedback report from Students:

Feedback was taken from the students who were passing out during the academic year, 2013-2014 and 2014-15. About 83% of the Students responded to the request. The summary of the feedback is as follows:

- Courses based on recent trends would be helpful
- Lab could be introduced for computer networks course
- Hands-on experience on cloud computing would be encouraging students to work in the corresponding field
- Computer vision, IoT and Cyber Physical Systems course can be introduced
- Revision of big data analytics can be done by including some recent technologies like Hadoop
- Elective subjects like cloud computing can be made as core such that diversified courses can be introduced as elective
- Practical Sessions on Big Data Analytics can be introduced

Action taken report:

Based on the feedback received, the following actions were taken:

- IoT was introduced as an elective course as there is a lot of scope for students to develop societal applications
- Data Structures and Computer Networks Lab was introduced
- Cloud Computing and Big Data Analytics lab was introduced such that practical experience can be provided for the students
- Computer Vision course was introduced
- The syllabus of Big Data Analytics is revised by including concepts related to Hadoop, Map-reduce.
- Cloud Computing course was made as a core course
- Big Data Analytics lab was introduced in integrated with cloud computing

Feedback report from Faculty members:

Feedback was taken from all the faculty members of the program. The following were the suggestions made:

- Database System Environment, Centralized and Client/server Architectures for DBMS can be included in Advanced Database Management Systems
- Revision of cluster analysis concepts need to be done in Data Warehousing Data Mining Course

- Big data Analytics need to be revised to include latest technologies
- The design of memory hierarchies can be removed and The Evolution of Dataflow computers, Computer Architecture of Warehouse–Scale Computers can be added in advanced computer architecture
- Heaps and travelling salesman problem for dynamic programming can be included in data structures and algorithms

Action taken report:

Based on the feedback received, the following actions were taken:

- Link Virtualization, Concepts related to Internet protocol, VPNs, Tunneling and Overlay Networks were removed. Application Layer-Principles of Network Applications, the Web and HTTP, File Transfer: FTP, Electronic Mail in the Internet, Domain Name System (DNS), Cellular networks were included in Advanced Computer Networks course
- Database System Environment, Centralized and Client/server Architectures for DBMS were included and Concepts related to distributed data bases were revised in Advanced Database Management Systems
- Cluster Analysis concepts were revised to include more in-depth concepts in Data Warehousing and Data Mining Course
- Latest technologies like Hadoop, Map-reduce were included and the complete syllabus of Big Data Analytics was revised
- The design of memory hierarchies, PRAM and VLSI models, Graphics processing units, Computer Architecture of Warehouse – Scale Computers were removed and The Evolution of Dataflow computers, Computer Architecture of Warehouse–Scale Computers are added in Advanced Computer Architecture.
- Heaps and travelling salesman problem for dynamic programming were included in data structures and algorithms course

M. Tech. in Electrical Power Systems

Feedback report from Alumni:

Feedback was taken from 2011-2012 and 2012-2013 Passed out batches during the academic year 2013-2014 and 2014-2015. About 40% of them responded to the survey. Their feedback was summarized as follows:

1. To meet the industrial requirements and latest technologies, new courses such as High Voltage Engineering has to be introduced.
2. Thorough usage of modern tools like PSCAD and MATLAB shall be imparted as they were used in various industries.

Action taken report:

1. New courses "High Voltage Engineering" and its associated laboratory "High Voltage Lab" were introduced to impart the advanced concepts of High voltage engineering conceptually and practically.
2. The advanced simulation tools in electrical engineering domain such as MATLAB and PSCAD were included into the two new lab courses.

Feedback report from Students:

The students of 2013-2014 and 2014-2015 Passed out batches were asked to give feedback for the curriculum improvement during the academic years 2013-14 and 2014-15 respectively. The following were the suggestions given by 80% of them:

1. More practical exposure should be imparted through new lab oriented courses in the field of Power Systems.

Action taken report:

1. Two lab courses were introduced per semester to give more practical exposure.
2. Two new lab courses "Power Systems Simulation-I lab" and "Power Systems Simulation-II lab" were introduced to impart more practical exposure in operational and analytical aspects of power systems.
3. The advanced simulation tools in electrical engineering domain such as MATLAB and PSCAD were spread into the two lab courses.

Feedback report from Faculty members:

Feedback report was taken from all the faculty members who taught the courses of the program. The suggestions are summarized below:

1. The concepts of electrostatic fields and its measuring methods should be included somewhere in the curriculum appropriately.
2. The concepts of ideal and practical characteristics of power electronic switches should be refreshed again into the course "Power Electronic Converters".
3. The course Power System Security and State Estimation seems inadequate and should be elaborated by including new concepts into the course.
4. Awareness on relevant standards of power quality and supply should be given to the students through appropriate course.
5. Student should be taught of standards used in power industry.
6. Students should be enlightened with the practical excitation system and should be dealt in the course Power System Stability and Control.

7. Students shall encourage using the tools MATLAB and PSCAD for analysis, design and solutions to problems in the domain that would help in doing their project work.

Action taken report:

1. The concepts of electrostatic fields and measurement of electrostatic fields were included into the course "EHVAC Transmission".
2. The concepts of ideal and practical characteristics of power electronic switches were included into the course "Power Electronic Converters".
3. Advanced concepts of power system state estimation and security were added into the course and were elaborated as two units covering all advanced aspects. Also the concepts EMS center, Data actuation methods were included to substantiate the course.
4. The IEEE /IEC standards for quality of power supply were included into the course "Reactive Power Compensation and Management" for making the students aware of the industrial standards. Also IEEE/IEC standards on harmonics were included into the course "High Voltage DC Transmission".
5. The application of search algorithms such as genetic algorithms to control and coordination of FACTS devices was included in the course "Flexible AC Transmission System".
6. Emphases on the practical IEEE excitations models were given and were included in the appropriate course "Power System Stability and Control".
7. Students are given in-depth usage of MATLAB/SIMULINK, PSCAD tools for solving problems in the domain of Power Systems and power electronics.

M. Tech. in Software Engineering

Feedback report from Alumni:

Feedback was received from 40% of alumni belonging to 2011-12 and 2012-13 passed out batches and they:

1. Suggested to introduce more industry oriented courses such as Big Data Analytics, Advanced Software Engineering and audit courses such as Intellectual Property Rights.
2. Suggested to include more laboratory components in curriculum.
3. Recommended to encourage students towards online and blended learning courses on emerging areas of Computer Science and Software Engineering.

Action taken report:

1. Industry oriented courses were introduced courses such as Big Data technologies, Advanced Software Engineering and audit course on Intellectual Property Rights.
2. Two laboratory courses were included in M. Tech (SE), I Semester and II Semester respectively.
3. The students were encouraged to attend on-line certification programmes such as MHRD programmes, MOOCs and programmes conducted by Andhra Pradesh State Skill Development Corporation (APSSDC) and APPSC-NASSCOM.

Feedback report from students:

Feedback was received from 80% of students belonging to 2013-14 and 2014-15 passed out batches and they:

1. Suggested to offer Cloud Computing and Big Data Technologies courses as core courses instead of electives.
2. Requested to reduce the syllabus of Service Oriented Architecture and Software Architecture and Design Patterns courses.

Action Taken Report:

1. Offered Cloud Computing and Big Data Technologies courses as core course instead of elective course in M. Tech (SE), I and II Semesters respectively.
2. Reduced the syllabus of Service Oriented Architecture and Software Architecture and Design Patterns courses in M. Tech (SE), II semester.

Feedback report from Faculty Members:

Feedback was received from all the members of faculty who taught the courses of the program and they:

1. Suggested to combine Software Reliability and Software Reuse as single course.
2. Suggested to include laboratory courses on Cloud Computing and Big Data Technologies.
3. Suggested to introduce laboratory course on software life cycle.

Action Taken Report:

1. The courses Software Reliability and Software Reuse combined as a single course and offered in I semester.
2. The laboratory courses on Cloud Computing and Big Data Technologies were included in I and II semesters respectively.
3. Advanced Software Engineering Laboratory-I and Advanced Software Engineering Laboratory-II were included in M. Tech (SE), I and II Semesters respectively.

M. Tech. in Digital Electronics and Communication Systems

Feedback report from Alumni:

Feedback is taken from 2011-2012 and 2012-2013 Passed out batches during the academic year 2013-2014 and 2014-2015. About 40% of them responded to our survey. Their feedback is summarized as follows:

1. To meet the industrial requirements, advanced knowledge in latest technologies has to be gained through the introduction of new courses.
2. Experiments on image processing have to be included in Signal Processing Laboratory.
3. More mathematical Problems can be solved in the course Detection and Estimation of Signals as they will be useful in estimation and tracking.

Action taken report:

1. New courses like Soft Computing Techniques, ASIC Design and Speech Processing were included to fulfill the industrial needs.
2. Two new laboratories, one on Image & Video Processing and other on Communications were included in the curriculum.
3. Problem solving concept was included in all the units to focus more on solving problems related to estimation and tracking.

Feedback report from Students:

The students of 2013-14 and 2014-15 Passed out batches were asked to give feedback for the curriculum improvement. About 80% of the students responded and their suggestions are summarized below:

1. To strengthen the quality of projects in communications, one unit on Multichannel and Multicarrier Systems can be included in any communications course.
2. Syllabus in Information Theory and Coding Techniques has to be compressed.
3. Research Methodology can be made an audit course.

Action taken report:

1. The course on Real Time Systems was strengthened and improved by including Scheduling relating to multiprocessor and distributed systems. Also focus on various commercial RTOS was made.
2. The concepts like Application of Block codes for error control in data storage Systems, Feedback Decoding, Application of Viterbi and sequential decoding were shifted under self-study concepts.
3. Research Methodology was made an audit course.

Feedback report from Faculty members:

Feedback report was taken from all the Faculty members during academic years 2013-14 and 2014-15 who taught the courses of the program. The suggestions are summarized below:

1. More emphasis can be made on Multichannel and Multicarrier Systems in the course Digital Communication Techniques instead of Detection of spread spectrum signals. Also, concepts on matched filter and Rake receivers can be added.
2. Topics like Red -Green-Blue (RGB) color gamut, chromaticity, energy transfer, energy absorption, optical emission, Projection Displays and Near-to-Eye Displays can be added in the course named Optical Communications and Networks for completeness.
3. Courses on soft computing and speech processing can be introduced.

Action taken report:

1. One Complete unit for Multichannel and Multicarrier Systems was allocated in Digital Communication Techniques. Concepts on matched filter and Rake receivers were also added.
2. Topics mentioned by Faculty in Optical Communications and Networks were added for completeness.
3. New courses like Soft Computing Techniques, ASIC Design, Speech Processing, Image & Video Processing Lab and Embedded Systems Lab were added in the curriculum. Also, an audit course on Intellectual Property Rights was included.

M. Tech. in VLSI**Feedback report from Alumni:**

Feedback is taken from 2011-12 and 2012-13 Passed out batches during the academic year 2013-14 and 2014-15 academic years. About 40% of them responded to our survey. Their feedback is summarized as follows:

1. To meet the industrial requirements, advanced knowledge in latest technologies has to be gained through the introduction of new courses.
2. Experiments on Physical Design Automation have to be included in Mixed Signal Laboratory.
3. As Power consumption in CMOS gates and timing issues are very important parameters, the Course on Digital IC Design has to be strengthened by introducing these concepts.

Action taken report:

1. New courses like FPGA Architectures and Applications, System-on-Chip Design and Verification, Nano electronics, Analog IC Design Lab, Digital IC Design Lab and Nano electronics Lab were included to fulfill the industrial needs.
2. Experiments on Physical Design Automation were included in Mixed Signal Laboratory.
3. More relevant algorithms and the design aspects were included in Physical Design Automation. Content on COSYMA and LYCOS co-design systems was elaborated. Topics on stability and noise analysis were included in Analog IC Design.

Feedback report from Students:

The students of 2013-14 and 2014-15 Passed out batches were asked to give feedback for the curriculum improvement. About 80% of the students responded and their suggestions are summarized:

1. Applications on Nonlinear Analog circuits can be dealt in detail for Analog IC based designs.
2. Suggested to include one more lab in each semester to improve skills.
3. A course on Nanoelectronics can be introduced in the curriculum.

Action taken report:

1. Nonlinear Analog circuit's applications- Ring oscillators and Simple PLL were included in the Analog IC design course.
2. Two new laboratories were included in the curriculum.
3. As miniaturization plays a very important role in Electronic industry, new courses on Nanoelectronics titled Nanoelectronics and Nanoelectronics Laboratory were included in the curriculum.

Feedback report from Faculty members:

Feedback report was taken from all the Faculty members who taught the courses of the program during 2013-14 and 2014-15 academic years. Their suggestions are summarized.

1. More importance can be given to FSM based design and architecture in FPGA Applications.
2. For completeness Specific Etch Processes can be added in the course IC Fabrication.
3. New courses like Nano electronics and System-on-Chip Design have to be introduced to get acquaintance with latest technologies.

4. Also the syllabus should be reorganized logically ASIC Design.
5. Redundancy has to be removed in Low Power VLSI Design and Digital IC Design.

Action taken report:

1. Units III, IV& V were modified with FSM based design and architecture along with case studies for system level design were included in the course FPGA applications.
2. To understand etching completely Specific Etch Processes were added in the course IC Fabrication.
3. Courses like FPGA Architectures and Applications, System-on-Chip Design and Verification, Nano electronics, Analog IC Design Lab, Digital IC Design Lab and Nano electronics Lab were introduced in the curriculum to help the students to get adapted to the latest technology.
4. Syllabus in ASIC Design was reorganized logically.
5. To avoid redundancy, Device behavior and modeling in the course Low Power VLSI Design and layout design rules in Digital IC Design were removed.

M. Tech. in Communication Systems

Feedback report from Alumni:

Feedback is taken from 2011-12 and 2012-13 Passed out batches during the academic year 2013-14 and 2014-15. About 40% of them responded to our survey. Their feedback is summarized as follows:

1. To gain advanced knowledge in image processing and antennas areas, new courses have to be introduced on them.
2. The number of laboratories can be increased to acquire strong practical knowledge.
3. More mathematical Problems can be solved in the course Detection and Estimation of Signals as they will be useful in estimation and tracking.

Action taken report:

1. New courses like Image & Video Processing and Smart Antennas were introduced.
2. Two new laboratories, one on Image & Video Processing and other on RF Circuits & Optical Communications were included in the curriculum.
3. Problem solving concept was included in all the units to focus more on solving Problems related to estimation and tracking.

Feedback report from Students:

The students of 2013-14 and 2014-15 Passed out batches were asked to give feedback for the curriculum improvement. The following were the suggestions given by 80% of them:

1. To strengthen the quality of projects in communications units on Multichannel and Multicarrier Systems can be included in any communications course.
2. Syllabus in Information Theory and Coding Techniques has to be compressed.
3. A new course on Image processing can be introduced.
4. Research Methodology can be made an audit course.

Action taken report:

1. The course on Real Time Systems was strengthened and improved by including Scheduling relating to multiprocessor and distributed systems. Also focus on various commercial RTOS was made.
2. The concepts like Application of Block codes for error control in data storage Systems, Feedback Decoding, Application of Viterbi and sequential decoding were shifted under self-study concepts.
3. To get exposed to the advancements in Image processing, courses like Image & Video Processing along with the laboratory course on it with the title Image & Video Processing lab were introduced in the curriculum.
4. Research Methodology was made an audit course.

Feedback report from Faculty members:

Feedback report was taken from all the Faculty members during 2013-14 and 2014-15 academic years who taught the courses of the program. Their suggestions are summarized below:

1. More emphasis can be made on Multichannel and Multicarrier Systems in the course Digital Communication Techniques instead of Detection of spread spectrum signals. Also, concepts on matched filter and Rake receivers can be added.
2. Topics like Red -Green-Blue (RGB) color gamut, chromaticity, energy transfer, energy absorption, optical emission, Projection Displays and Near-to-Eye Displays can be added in the course named Optical Communications and Networks for completeness.
3. To further strengthen the course on Software Defined Radio, Digital Frequency Up- and Down Converter and Applications of Software Radio Principles to Antenna Systems can be added.

4. Intellectual Property Rights can be introduced as an Audit Course to develop awareness of the relevance and impact of IP Law on their academic and professional lives.
5. To remove redundancy course on Linear Algebra can be removed.

Action taken report:

1. One Complete unit for Multichannel and Multicarrier Systems was allocated in Digital Communication Techniques. Concepts on matched filter and Rake receivers were also added.
2. Topics mentioned by Faculty in Optical Communications and Networks were added for completeness.
3. Half unit on Digital Frequency Up- and Down Converters was added in the course Software Defined Radio. Applications of Software Radio Principles to Antenna Systems were also added to strengthen the course.
4. Intellectual Property Rights was introduced as an Audit Course.
5. Linear Algebra course was removed from the curriculum.

M. Tech. in Computer Networks and Information Security

Feedback report from Alumni:

Feedback was taken from 2011-12 and 2012-13 passed batches of out students during the academic year 2013-14 and 2014-15. About 41% of the Alumni responded to the request. The summary of the feedback is as follows:

- Subjects like Big Data Analytics can be made as core subjects
- The latest and demand driven industry courses like Ethical hacking and Internet of Things can be introduced
- More courses in the Information management knowledge area can be introduced
- Practical Sessions can be introduced for Cloud Computing

Action taken report:

Based on the feedback received, the following actions were taken:

- Data warehouse and data mining, Big data analytics subjects are made as core subjects
- Both IOT and Ethical Hacking were introduced as new courses as they were the demanding concepts in the industry
- Information Retrieval Systems and Social Networks were introduced as elective courses

- Lab was introduced for Cloud Computing and Big Data Analytics to enhance the practical knowledge of the students in the respective field.

Feedback report from Students:

Feedback was taken from the students who were passing out during the academic year, 2013-2014 and 2014-15. About 82% of the Students responded to the request. The summary of the feedback is as follows:

- Some important subjects which are elective need to be made core
- Advanced courses like Social Networks and Information Retrieval System can be introduced which helps in employability
- Practice sessions for subjects like cloud computing were needed
- Courses like IOT can be introduced
- More tools on recent trends can be included
- Wireless Network lab exercises can be strengthened

Action taken report:

Based on the feedback received, the following actions were taken:

- Data warehouse and data mining, Big data analytics subjects are made as core subjects
- Information Retrieval Systems and Social Networks were introduced as elective courses
- Cloud Computing and Big Data Analytics lab was introduced to provide hands-on experience to students
- IOT was introduced as new elective course
- Hadoop Technology was introduced in both theory and lab courses of Big Data Analytics
- More exercises based on CRC and RED were included to strengthen the Computer Networks and Information Security lab

Feedback report from Faculty members:

Feedback was taken from **all** the faculty members of M.Tech(CNIS) program. The following were the suggestions made by the faculty which were considered for the improvement of the curriculum:

- Security concepts can be removed from Advanced Computer Networks to avoid redundancy
- Case studies can be increased in Intrusion detection systems

- Basics may be strengthened in web technologies
- Advanced courses like information retrieval systems can be introduced
- Database concepts related to mobile devices can be included in mobile computing
- Practice sessions would make students to understand the concepts of big data analytics in a better way

Action taken report:

Based on the feedback received, the following actions were taken:

- Security concepts were removed from Advanced Computer Networks course to avoid redundancy and included classless IP address concept
- Introduced the case studies for Botnet Construction and IDS detection in Intrusion Detection Systems Course
- Added PHP basics and socket programming in Web Technologies course
- Information Retrieval System was introduced
- Mobile Databases were included in Mobile Computing Course.
- Introduced the lab for Cloud Computing and Big Data Analytics using Hadoop and open cloud environments

Feedback report from Employer for all M. Tech. Programs:

Employer feedback is taken centrally. The feedback on curriculum is taken from employers who recruited 2011-12 and 2012-13 passed out batches of our students in the academic years 2013-14 and 2014-15. Companies such as Wipro Technologies, Tata Consultancy Services, have responded to our request. They suggested to introduce the following new courses in the respective specialisations.

1. Internet of things
2. Software testing techniques
3. High voltage engineering
4. High voltage engineering Lab.
5. Advanced software Engineering
6. Advanced software Engineering Lab
7. Soft computing techniques
8. Image and video processing Lab
9. SoC design and verification
10. Nanoelectronics Lab
11. Smart antennas
12. RF circuits lab
13. Ethical hacking

Action taken report:

As suggested by the employers, new courses were included in the various specializations.

1. Courses on Internet of things and Software testing techniques are included in Computer Science
2. Courses on High voltage engineering and High voltage engineering Lab. included in Electrical Power Systems
3. Courses Advanced software Engineering and Advanced software Engineering Lab are included in Software Engineering
4. Courses on Soft computing techniques and Image and video processing Lab are included in Digital Electronics and Communication Systems
5. Courses on SoC design and verification and Nanoelectronics Lab are included in VLSI
6. Courses on Smart antennas and RF circuits lab are included in Communication Systems.
7. Courses on Ethical hacking and Internet of things are included in Computer Networks and Information Security.

Master of Computer Applications**Feedback report from Alumni:**

Feedback was taken from 2011-12, 2012-13 and 2013-14 passed out batches during the academic years 2013-14, 2014-15 and 2015-16 respectively. About 40% of them were responded in each year to our survey. Their feedback was summarized as follows:

1. Suggested to introduce industry related courses such as Internet of Things, Cyber Security, Computer Forensics & Mobile Application Development.
2. Courses like programming through C & LINUX have to be strengthened.
3. Encourage students towards self learning courses in emerging fields of Computer Science.

Action taken report:

1. Courses like Internet of Things, cyber security, computer forensics and Mobile Application Development were introduced to meet the industrial requirements.
2. Topics like application of structure with pointers and recursion were included in Programming through C, LINUX commands, shell scripting were added in IT lab to strength the course.
3. Emerging courses like Ethical Hacking, Bioinformatics and Massive Open Online Courses were offered for students to encourage online & blended learning.

Feedback report from Students:

Students exit batch feedback was taken from 2013-14, 2014-15 and 2015-16 passed out batches of its respective academic years. About 80% of them were responded to survey. Their feedback is summarized as follows:

1. Suggested to include Data Structures as a separate laboratory and real world applications for Web Programming and Big Data Analytics laboratories.
2. Requested to refine the syllabus in Object Oriented Programming through JAVA, Programming through C, IT workshop & Management laboratory.
3. Requested to offer Cloud Computing, Big Data Analytics laboratories to acquire indepth knowledge on the respective courses.
4. Include AWT & SWINGS in application through Java, open source tools and case studies for skill development.

Action taken report:

1. Introduced courses on Data Structure laboratory, Big Data Analytics lab, Cloud Computing lab in SVEC16 curriculum.
2. Refined syllabus in Object Oriented Programming through java, IT workshop & Management laboratory & fundamentals of computer in Programming through C courses.
3. Included open source tools like R, HADOOP, MS-Azure in Big Data Analytics lab and Cloud Computing Lab, AWT, SWINGS in Object Oriented Programming through Java lab courses in the curriculum to meet the needs of industry.

Feedback report from Faculty members:

Faculty feedback was taken from all faculties who taught the courses of the program during the Academic years 2013-14, 2014-15 and 2015-16. All of them have responded and following are few valuable suggestions:

1. Suggested to introduce LINUX laboratory and measures of efficiency & analysis of algorithms in Programming through C course.
2. Latest trends of Information Technology like Bioinformatics and Ethical Hacking courses have to be included.
3. Adopt self-learning topics in each courses enhance the capabilities of students.
4. Recommended to include Mini project in V semester instead of IV semester.
5. Suggested to include topics for improving information transfer, and reading comprehensions among students in the course English Language lab.
6. Suggested to include topics on Gaps in Training, Training Process, and Impediments in Effective training in the course Organizational Behavior and Human Resource Management.
7. Suggested to include a course on "Soft Skills Lab."

Action taken report:

1. Industry oriented courses were introduced on emerging fields of computer science like LINUX laboratory and measuring of efficiency & analysis algorithms in Programming through C.
2. Courses like Bioinformatics and Ethical hacking were included which are emerging in the field of Information Technology.
3. Included self-learning topics in each course of SVEC16 regulations.
4. Mini Project was included in V semester as advanced programming languages were covered in IV and V semesters.
5. Topics for improving information transfer, and reading comprehensions among students in the course English Language lab were included.
6. Topics on Gaps in Training, Training Process, and Impediments in Effective training in the course Organizational Behavior and Human Resource Management" were included.
7. A new course on "Soft Skills Lab." Was included.

Feedback report from Employer:

Employer feedback is taken centrally. The feedback on curriculum is taken from employers who recruited 2011-12, 2012-13 and 2013-14 passed out batches of our students in the academic years 2013-14, 2014-15 and 2015-16. Companies such as Tata Consultancy Services, Wipro Technologies, DST Worldwide Services have responded to our request. They suggested to include the following new courses.

1. Big data analytics lab
2. Cloud computing lab
3. Enterprise resource planning
4. Internet of Things
5. Computer Forensics
6. Mobile Application Development
7. Bio-informatics
8. Cyber Security
9. Ethical Hacking

Action taken report:

As suggested by the employers, all the above new courses are included.

Feedback reports for future revision of curriculum:

BS&H courses for B. Tech. Programs:

To reduce the redundancy, the feedback reports from faculty members of **Basic Sciences and Humanities (BS&H)** department and the action taken reports are summarized below:

Feedback report from Faculty members of BS&H:

All faculty members of BS&H department, who have taught their courses to students of various B. Tech. Programs, were given their opinion on curriculum improvements. Faculty opined that the following curricular modifications to be incorporated in the next curriculum revision.

1. Multi-variable Calculus and Differential Equations: Include the applications of differential equations to deflection of beams, oscillations of spring mass systems, applications of derivatives to find centre of curvature, envelope, evolutes and involutes and differential equations with variable coefficients and simultaneous differential equations.
2. Matrices and Numerical Methods: Include methods of reducing a quadratic form into normal forms and Sylvester's law of inertia, curve fitting by the methods of moments and numerical methods to solve partial differential equations.
3. Transformation Techniques and Partial Differential Equations: Include different methods of solving non linear partial differential equations and Laplace transforms method to solve simultaneous differential equations.
4. Probability Distributions and Statistical Methods: Include uniform probability distributions, correlation coefficient for bi-variate tables and paired t –test and queuing theory.
5. Engineering Physics: Include Schrodinger time dependent wave equation, the concepts of high temperature super conductors and Bose-Einstein condensation and the concepts of optical fiber sensors and characterization of nano particles.
6. Engineering Physics Lab: Include i-v characteristics of Zenor-diode along with p-n junction, numerical aperture of optical fiber using LASERS and Experiments on piezo electric materials.
7. Engineering Chemistry: Include advanced topics like niño composites and bio polymers, Basics of emerging concepts like future trends of green chemistry and bio-sensors and water harvesting methods and purification of water by advanced methods.

8. Engineering Chemistry Lab: Include determination of chloride content in water, ion exchange column for removal of hardness of water and determination of flash point and fire point of lubricants.
9. Technical English: Include the topics guidelines to write research paper in writing skills, group communication in speaking skills and an assignment on extensive reading in reading skills.
10. English Language Lab: Include the exercises on book review to improve writing and speaking skills, a project on information transfer and assignment on vocabulary to enhance the language skills.
11. Special Functions and Complex Analysis: Include the evaluation of real integrals by indentation methods, Legendre and Legendre's polynomials and concepts of finding residues through Laurent's expansions.
12. Managerial Economics and Principles of Accountancy: Incorporate the concepts of Cash book and bank reconciliation statement, TALLY 9.1 software for computerized accounting, and E-Pricing methods of products in accordance with the modern marketing systems.
13. Banking and Insurance: Include latest concepts related to merging of state bank groups, the concept of demonetization on Indian Economy and Agricultural insurances concepts.
14. Cost accounting and Financial Management: Introduce the job costing methods, Contract costing methods and the concepts relating to stock exchanges
15. Entrepreneurship for Micro, Small and Medium Enterprises: Incorporate the concepts of incubation centers, Modern Guidelines in establishing organizations and Industrial Financial organizations – concepts and guidelines.

Action taken reports:

The suggestions from alumni will be considered in the next revision of curriculum.

B. Tech. in Civil Engineering

Feedback report from Alumni:

About 40% of Alumni from passed out batch of 2014-15 were participated in the feedback and they opinion mentioned below:

1. Suggested to include advanced courses on Composite Construction, Automation in Construction, Building Services, Pre-Engineered Construction, Construction Chemicals, Designing with Geosynthetics, Low Cost Housing, Urban Planning, Intelligent Structures, Green Construction, Smart Materials and Smart Structures, Sustainable Construction, Precast Construction for better employability.

Action taken report:

The suggestions from alumni will be considered in the next revision of curriculum.

Feedback report from Students:

The feedback on curriculum was obtained from 80% of students from passing out batch in 2016-17. Students would like to have the following courses to be included in the curriculum in the next revision:

1. Suggested to include advanced courses on Composite Construction, Pre-Engineered Construction, Construction Chemicals, Designing with Geosynthetics, Low Cost Housing, Urban Planning, Intelligent Structures, Green Construction, Precast Construction.

Action taken report:

The suggestions will be considered in the next revision of the curriculum.

Feedback report from Faculty members:

All faculty members were given their opinion on curriculum for improvement. Faculty opinion on curriculum and their suggestions are listed below.

1. Removing of the topics of Secant formula from unit 3 and inter changing some topics in unit 4 & unit 5 in "Structural Analysis – I" Course.
2. Removing of topics flanged sections for working stress method, shear and torsion in beams (limit state method) in unit 1, unit 2: removing limit state of serviceability and adding in unit 5 with stair cases and unit 5: shallow footing has to be added along with columns in 'Reinforced Cement Concretes" course.
3. Removing of topics on influence lines for forces in members of pratt and warren trusses in unit 1, consideration of Kani's method in unit 3, shifting of topic energy method from unit 3 to unit 4 in "Structural Analysis – II" Course.
4. Renaming the unit 3 and unit 4 as matrix flexibility method and matrix stiffness method respectively in "Advanced Structural Analysis" course.
5. Addition of losses of prestress to unit I from unit II, addition of Deflection part as second part and also add in the title in Unit V in Prestressed Concrete course.
6. Removing topic on perspective views of one bed room and two room buildings in "Computer Aided Building Planning and Drawing" lab course.
7. Moving experiments on building materials to first place in "Building Materials and Construction Technology Lab" Course.
8. Addition of specification of contract document in unit 1, necessity of arbitrator, requirement of sound arbitrator in unit 3, and Laws relating to working hours and days, labour EPF regulations, laws of leave regulations in unit 5 in "Contract Laws and Regulations" Course.

9. Renaming of the theory course on "Estimation Quantity Surveying" to "Estimation, Costing and Valuation" and removing of topics tube wells, open wells and retaining walls in unit 2 and addition of topics rate analysis – wood work for doors & windows, water pipe line and sanitary line in unit 3.
10. Splitting of theory course on "Fluid Mechanics and Hydraulic Machinery" into two courses as "Fluid Mechanics" and "Hydraulic Machinery".
11. Removing of unit 3, groundwater hydrology and addition of modified pulse method in unit 4 of "Engineering Hydrology" course.
12. Addition of topics: classification of river stages, rivers on alluvial plains, river training works- classification and methods in unit 5 of "Irrigation Engineering" course.
13. Addition of components of a simulation model, steps and simulation runs topics in unit 4 of "Water Resources Planning and Management" theory course.
14. Addition of topic on development of mini hydel power plants in unit 5 of "Hydra Power Engineering" theory course.
15. Addition of topic on clay minerals in unit 2, change of topic as importance of geophysical studies in civil engineering applications in unit 3, addition of topics geological considerations in road construction in hilly terrain and Precaution to be taken to counteract unsuitable conditions in unit 5 of "Engineering Geology" theory course.
16. Removing of normative mineral analysis and inclusion of study of geological maps, drawing and interpretation of geological sections in inclined beds in "Engineering Geology Lab" course.
17. Removing of latest method topic in unit 1 of "Soil Mechanics" course
18. Addition of in-situ permeability test in "Geotechnical Engineering Lab" course
19. Removing of topic in-situ vane shear test in unit 1, types of earth retaining structures, stability considerations of gravity and cantilever retaining walls in unit 2 and inclusion of Vesic's theory in unit 4 of "Foundation Engineering" course.
20. Addition of topic on consequences of expansive soil in unit 4 of "Advanced Foundation Engineering" Course.
21. Addition of topics on GPS, Types of EDMs and its applications in unit 5 of "Surveying" theory Course.
22. Removing the exercise on chain traversing and plotting and Compass traversing and plotting in "Surveying Lab" Course.
23. Addition of radiant energy in unit 2, raster data storage in unit 4, removing of drainage morphometry in unit 5 of "Geospatial Technologies" Course.

24. Addition of topics on study of handheld GPS and GPS traversing in unit 5 of "Global Positioning System" theory Course.
25. Renaming exercise10 on watershed analysis as watershed delineation, removing the exercise12 on natural hazard zones map and inclusion of geo-referencing and projection of the toposheet/map/image in "Remote Sensing and Geographical Information Systems" lab Course.
26. Removing of topic on soil desirable properties and inclusion of flexible pavement design by Burmister's (layered system) method in unit 2, increasing total number of hours to 12 in unit 2 and changing the pavement marking as a new chapter in unit 5 of "Highway and Traffic Engineering" Course.
27. Removing of soil suitability analysis in unit 1 and stabilization of track on poor soil in unit 2 of "Railway, Airport and Harbour Engineering" theory Course.
28. Addition of new construction design techniques of tie bars and dowel bars in unit 4 of "Pavement Analysis and Design" theory course.
29. Removing of exercise on field CBR test for sub grade strength in "Highway Engineering Lab" Course.
30. Addition of design of sedimentation tank in unit 3 in "Water Supply Engineering" course
31. Removing of topics on processing techniques and equipment, recovery and recycling of materials from solid wastes Composting, incineration and Pyrolysis from unit 4 in "Solid Waste Management" theory course
32. Addition of new experiment on air pollution measurement in "Environmental Engineering Lab" course.

Action taken report:

The suggestions from faculty will be considered in the next revision of curriculum.

B. Tech. in Electrical and Electronics Engineering

Feedback report from Alumni:

The alumni of 2014-15 passed out batch have given the following suggestions/feedback during 2016-17 on various courses for possible improvements in future.

1. The courses such as machine dynamics could be introduced as it would be useful to understand, analyze and design control strategy for better control of machines.
2. Topics on NEMS shall be included in the Courses on MEMS.

Action taken:

Suggestions might be considered in the next revision of the syllabus.

Feedback report from Students:

The students of 2016-17 passed out batch suggested the following improvements in the next revision of the curriculum.

1. The courses such as power system optimization should be introduced into the curriculum for optimization of various operational aspects of power systems.

Action taken:

Suggestions might be considered in the next revision of the syllabus.

Feedback report from Faculty members:

The faculty members who have taught the courses of the program have suggested the following improvements in the next revision of the syllabus.

1. Review of Vector Algebra is to be included in the course Electromagnetic Fields for better understanding.
2. Numerical relays are to be incorporated in to the syllabus of the course Switchgear and protection.
3. Experimentation and demonstration on Electronic components may be incorporated in to the course "Electrical and Electronics Engineering Workshop Practice".
4. A new course on materials and science should be introduced as "Engineering materials".
5. The course Design of Electrical Machines may be made mandatory.
6. The concepts of OOPs using C++ must be made mandatory as majority of recruitment were based on such concepts.
7. A course Signals, Systems and Networks should be made as a continuation for the course Electrical circuits in I-II which would be helpful in keeping students in line.
8. The concepts of electro static fields and magneto static fields could be shown practically by using simulation software.
9. The topic effect of increasing air gap of induction motors can be included into the course "Electrical machine design".
10. Reconsider the concepts of Analog instruments and introduce digital instruments in its place.

Action taken report:

Suggestions might be considered in the next revision of the curriculum.

B. Tech. in Mechanical Engineering

Feedback report from Alumni:

Alumni feedback taken from 2014-15 passed batch. About 38% of the Alumni responded to our request and their suggestions are summarized below.

1. Suggested to include more industry relevant courses.
2. Suggested to incorporate more Software skills related courses to meet the industry requirements
3. Suggested to introduce practical courses associated with Industrial Engineering subjects.
4. Suggested to include Language lab courses can be introduced for improving communication skills

Action taken report:

The suggestions might be considered in the next revision of the curriculum.

Feedback report from Students:

The feedback from the students of 2016-17 passed out was collected. About 78% of the students responded to our request and the suggestions are summarized below.

1. Suggested to incorporate advanced subjects like artificial intelligence, Hydraulics and pneumatics in the curriculum.
2. Suggested to more electives of interdisciplinary.
3. Suggested to incorporate soft skills oriented Lab courses.
4. Suggested to introduce IT related courses.
5. Suggested to include more practical component.

Action taken report:

The suggestions will be considered in the next revision of the curriculum.

Feedback report from Faculty members:

The feedback from all the faculty who taught the courses of the program was collected in the academic year 2016-17, and the same is summarized below.

- Engineering Materials – Include chemical, dynamic and mechanical properties.
- Thermodynamic –Include thermodynamic relations.
- DME-II – include rope drives and chain drives.
- MTMMP – Include numerical derivation of cutting forces and their relationships.

Action taken report:

The suggestions might be considered in the next revision of the curriculum.

B. Tech. in Electronics and Communication Engineering**Feedback report from Alumni:**

Feedback was taken from 2014-15 passed out batch during the academic year 2016-17. About 40% of them responded to our survey. Their feedback is summarized as follows:

1. Latest concepts related to merging of state bank groups and demonetization on Indian Economy can be included in the Banking and Insurance course.
2. Concepts on Guidelines to write research paper can be added in Technical English course, so that students can start writing technical papers right from UG level.
3. Video processing can be added in Image Processing course.
4. To meet the industrial requirements, a new course on Advanced Microprocessors and Microcontrollers may be included in the curriculum. Also, High level programming needed to be introduced along with assembly programming.
5. Forward Error Correction (FEC) Systems and Automatic Repeat Request (ARQ) Systems under Error Correction Codes can be included in Digital Communications.

Action taken report:

The suggestions will be considered in the next revision of the curriculum.

Feedback report from Students:

The students of 2016-17 Passed out batch were asked to give feedback for the curriculum improvement. And their suggestions are summarized below:

1. Latest concepts on incubation centers and Guidelines in establishing organizations can be included in the course Entrepreneurship for Micro, Small and Medium Enterprises.
2. Experiments on optical fiber using LASERS and piezo electric materials can be added in the course Engineering Physics Lab.
3. A new course on IOT can be introduced in the curriculum.

Action taken report:

The suggestions will be considered in the next revision of the curriculum.

Feedback report from Faculty members:

Feedback was taken from all the Faculty members who taught the courses of the program during 2016-17. Their suggestions are summarized below:

1. More Quantitative analysis is required in the competitive Examination point of view in the course Electronic Devices and Circuits.
2. Redundancy in Digital IC Applications and VLSI Design can be removed.
3. Fabrication concept in Linear IC Applications can be removed as it is already included in Unit-I of VLSI design.
4. Simulation using Multisim/PSpice may be introduced for verifying the operation of Multivibrator Circuits in Pulse and Digital Circuits Laboratory.
5. Concepts related to Multi-band antennas & Miniaturized Antennas can be included to address the present advancements.
6. In competitive examinations point of view, the concepts like Laplace transform, super mesh and super node may be added in the course titled Network Analysis.
7. The topic named derivation of CE current gain with resistive load can be included under self-study concepts in Electronic Circuit Analysis & Design course.
8. Concepts related to Multi-band antennas & Miniaturized Antennas shall be included in the course Antennas and Waveguides to address the present issues in real world.
9. Concepts on comparison of Various IDEs for developing embedded products and compiler design can be added in Embedded Systems.

Action taken report:

The suggestions will be considered in the next revision of the curriculum.

B. Tech. in Computer Science and Engineering

Feedback report from Alumni:

Feedback was taken from 2014-2015 passed out students during the academic year 2016-2017. About 41% of the Alumni responded to the request. The summary of the feedback is as follows:

- Lab can be introduced for Big Data Analytics
- Rational Rose may be used in OOAD Lab
- Intelligent Computing Course Can be Introduced
- Courses Like Natural Language Processing may be introduced
- Cyber Physical Systems may be Introduced
- Smart Grid concepts may be included into any existing course or as a new course
- Data Science Knowledge is highly required

Action taken report:

- The suggestions will be considered in the next revision of the curriculum

Feedback report from Students:

Feedback was taken from the students who were passing out during the academic year 2016-17. About 81% of the Students responded to the request. The summary of the feedback is as follows:

- Computer Forensics lab may be introduced
- Multicore and System Programming like course would be useful
- Practical Sessions for Digital Logic and Design would make concepts more clear
- Industrial demand courses like cognitive science may be introduced
- Multiagent based Course can be included
- Course on Parallel programming may be introduced
- gaming engineering kind of course would be interesting
- Discrete time systems course may be useful
- Courses like Data Science, cyber physical systems can be introduced

Action taken report:

- The suggestions might be considered in the next revision of the curriculum

Feedback report from Faculty members:

Feedback was taken from all the faculty members during the academic years 2016-2017. Their suggestions are summarized below:

- Scripting languages can be added in principles of programming languages
- Cryptography and symmetric key algorithms can be included in Computer Networks
- Normalized cuts can be eliminated from Computer Vision Course
- Transmission Media can be added to Data Communication Course
- "Introduction to Software Testing" can be minimized as it may be covered in Software Engineering.
- Need more Concepts about Test Automation approach in Software Testing.
- Non-Functional Testing topics may be considered in Advanced Testing concepts in Software Testing

- Hybrid soft computing techniques such as Neuro-Fuzzy and Fuzzy-Genetic techniques can be included in Soft Computing
- Linux utilities such as Process utilities, Disk utilities, Networking commands, Filters, Text processing utilities can be included in Linux Programming
- It is better to include HTML integration with python in the place of Turtle graphics in Python Programming
- Applications of differential equations to deflection of Beams, Oscillations of spring mass systems can be introduced in Multi-Variable Calculus and Differential Equations.
- Uniform probability distributions can be introduced in Probability Distributions and Statistical methods
- Minimum spanning trees and algorithms can be included in data structures

Action taken report:

- The suggestions might be considered in the next revision of the curriculum

B. Tech. in Electronics and Instrumentation Engineering

Feedback report from Alumni:

The feedback was collected from 2014-15, passed out students during 2016-17 academic years. About 40% of the Alumni gave their feedback.

1. Suggested to include courses to increase practical knowledge.
2. Suggested to include more core courses related to Instrumentation
3. Suggested to include interdisciplinary courses

Action taken report:

The suggestions might be considered in the next revision of the curriculum.

Feedback report from Students:

Feedback has been taken from 2016-17 passed out students. About 80% of the students have given their feedback. The following were the suggestions given by the students.

1. Include advance processors in the content of course MPMC
2. Include more Lab courses.
3. Include more core (Instrumentation) oriented course.

Action taken report:

The suggestions might be considered in the next revision of the curriculum.

Feedback report from Faculty members:

Feedback is taken from all the faculty who taught the subjects of the program in the academic year 2016-17 and the salient points are:

1. Introduce latest processors like PIC and ARM in MPMC course.
2. Restructure the syllabus of Instrumentation in process industries for any particular industry.
3. Include control system applications in NNFS subject.
4. Add more number of laboratories to ensure the readiness of the students to enter into industries.
5. Rearrange topics CMOS, HDL programming and Verilog in Linear Digital IC applications course.
6. Introduce DSP Processors as separate course.
7. Use SIMLAB as simulation software in Signal Processing Lab.

Action taken report:

The suggestions might be considered in the next revision of the curriculum.

B. Tech. in Information Technology**Feedback report from Alumni:**

Feedback was received from 40% of alumni belonging to 2014-15 passed out batch and they are:

1. Recommended to include Problem solving and Python programming in I B. Tech
2. Suggested to introduce Internet of Things lab.
3. Suggested to include more case studies and mini projects as a part of curriculum lab cycle.
4. Recommended to introduce MongoDB tool in Database related laboratory course.
5. Requested to introduce a new course on Data Science and also a course on Computer Forensics and Security Management.

Action taken report:

The suggestions might be considered in the next revision of the curriculum.

Feedback report from Students:

Feedback was received from 80% of students belonging to 2016-17 passed out batch and they are:

1. Requested to offer Artificial Intelligence course.
2. Recommended to introduce a laboratory course on Network Security.
3. Suggested to introduce a lab courses on Python Programming and Compiler Design.
4. Requested to introduce courses on Deep Learning and Intelligent Systems.

Action taken report:

The suggestions might be considered in the next revision of the curriculum.

Feedback report from Faculty members:

Feedback was received from all the members of faculty who taught the courses of the program and their suggestions are:

1. Recommended to combine Machine Learning and Data mining courses.
2. Recommended to Include Energy in computing infrastructures topic in Environmental sciences.
3. Recommended to include serial communication, Asynchronous data transfer modes and cache coherence topics in Computer Organization course, File and Text utilities in Linux Programming course and carry-look-ahead adder in Digital Logic Design course.

Action taken report:

The suggestions might be considered in the next revision of the curriculum.

B. Tech. in Computer Science and System Engineering**Feedback from Alumni**

After summarizing the feedback collected from 42% of Alumni respondents of 2014-15 passed out batche during the academic years 2016-17, following are few valuable suggestions made by them:

1. Introducing laboratory courses in Data Analytics
2. Suggested to include Mobile Computing Lab
3. Emphasis on curriculum relevant to Systems Design and Engineering to be increased
4. More courses to be introduced in Intelligent systems domain
5. Python Programming to be taught in First Year of B.Tech course

Action Taken:

Suggestions might be considered in the next revision of the curriculum.

Feedback from Student

After summarizing the feedback collected from 2016-17 passed out student batch, 85% of students responded and the following are few valuable suggestions made by them for SVEC-16 regulations

1. Introduce advanced Machine Learning course into curriculum
2. Suggested to Introduce cyber-physical systems course as it is trend of the day
3. Laboratory courses for advanced subjects relevant to data analytics
4. New course on Big Data Analytics can be introduced

Action Taken:

Suggestions might be considered in the next revision of the curriculum.

Feedback from Faculty

After summarizing the feedback from all faculty respondents, following are few valuable suggestions made by them:

1. In Programming in C and other programming laboratories, mini projects can be included
2. Topics on VLSI programming basics can be included in Digital Logic Design
3. Few concepts on advanced computer Architectures can be included like GPUs, TPUs in computer Organization course
4. Topics with impetus on Generic operating systems can be studied instead of computer based Operating systems
5. In Database Management Systems MYSQL database can be used along with Oracle for understanding and comparison
6. In Software Engineering Evolving Agile Management and Certification topics useful from career prospects to be introduced
7. Concepts of Wireless Networking to be introduced in Computer Networks at Network Layer and Data Link Layers
8. Intelligent Computing Systems lab to be introduced in the curriculum

Action Taken:

Suggestions might be considered in the next revision of the curriculum.

Feedback report from Employer for all B. Tech. Programs:

Employer feedback was taken centrally. About twenty five companies have visit our campus for recruitment of 2014-15 passed out batch of our students. The feedback on curriculum was requested from these companies and also companies where our alumni are employed directly in the academic year 2016-17. The salient features of feedback report are summarized below:

1. Companies such as Tata Consultancy Services, Wipro Technologies, Tech Mahindra, Mphasis Ltd., ADP, Sonata and Polaris Consulting and Services suggested to include the following new courses in the relevant programs of computer sciences.
 - (a) Intelligent Computing
 - (b) Parallel programming
 - (c) Data Science
 - (d) Artificial Intelligence
 - (e) Advanced Machine Learning
 - (f) Big Data Analytics
2. Companies such as VSES India, Fony Technologies, GGK Technologies and ADP suggested to include the following new courses in the relevant programs of electrical sciences.
 - (a) Machine Dynamics
 - (b) Power System Optimization
 - (c) Industrial Electronics
 - (d) Principles of IOT
 - (e) Advanced DSP Processors
 - (f) IoT
3. Companies such as Saint-Gobain, STUP Consultants and Maccaferri Environmental Solutions suggested to include the following new courses in the branch of Civil Engineering.
 - (a) Advanced course on Green Construction
 - (b) Advanced course on Smart Materials and Smart Structures

4. Companies such as Hyundai Motor India Engineering Centre and Indian Army suggested to include the following new courses in the branch of Mechanical Engineering.

(a) Artificial Intelligence

(b) Smart City/ IoT

Action taken report:

Suggestions might be considered for revision of the curriculum in future.

M. Tech. in Computer Science

Feedback report from Alumni:

Feedback was taken from 2013-2014 and 2014-2015 passed out students during the academic years, 2015-2016 and 2016-2017 respectively. About 44% of the Alumni responded to the request each year. The summary of the feedback is as follows:

- Course like Advanced Algorithmic Analysis would help in research
- Pervasive computing can be introduced
- R Language can be used for Data Warehousing and Data Mining Lab
- New technologies can be introduced for data mining lab
- Grid computing may be introduced as a course
- Network Simulators may be included in Networks lab

Action taken report:

The suggestions might be considered in the next revision of the curriculum

Feedback report from Students:

Feedback was taken from the students who were passing out during the academic years, 2015-2016 and 2016-2017. About 83% of the Students responded to the request. The summary of the feedback is as follows:

- Lab may be introduced for Information Retrieval Systems
- Industry demand courses like data science may be introduced
- Practical sessions for recent trend courses like IOT may be included
- New tools can be used in Cloud Computing lab
- Multicore and parallel programming may be introduced
- Course based on analytics using cloud technology may be introduced

Action taken report:

The suggestions will be considered in the next revision of the curriculum

Feedback report from Faculty members:

Feedback was taken from all the faculty members of M.Tech(CS) program during the academic years, 2015-2016 and 2016-2017. The following were the suggestions made by the faculty which were considered for the improvement of the curriculum:

- Implementing and debugging operating system components, including the kernel module, System call, synchronization primitives, and the file system in Advanced operating systems.
- It is better to include some basic white box and black box testing techniques in software testing techniques
- Topics such as Red Black trees and Splay trees may be added in data structure and algorithms
- Trust Management incorporation can be included in cloud computing
- Test automation principles and few open source tools in software testing techniques
- Ddos-Prevention Mechanisms are to be included in Ethical Hacking

Action taken report:

The suggestions will be considered in the next revision of the curriculum.

M. Tech. in Electrical Power Systems**Feedback report from Alumni:**

The feedback was taken from Alumni of 2013-14 and 2014-15 passed out batches during 2015-16 and 2016-17 academic years. About 38% of Alumni responded to our request in each year and their suggestions are summarized:

1. The courses "Power System Automation", "Distributed Generation" can be introduced.
2. New course such as "Cognitive technologies in power systems" could be included into the curriculum as the field of big data and machine learning is an emerging fields in the domain.
3. The courses such as "Power electronics applications to power systems" could be introduced into the curriculum as the concepts of power electronics is finding its huge applications in the area of power systems.

Action taken:

Suggestion might be considered in the next revision of the curriculum.

Feedback report from Students:

Feedback was taken from the students who were passing out during the academic years 2015-2016 and 2016-2017. About 80% of the Students responded to the request in each year. The summary of the feedback is as follows:

1. The courses such as "Risk management in power systems" should be included into the curriculum.
2. A new course "Applied intelligence" could be included into the curriculum.

Action taken:

Suggestion might be considered in the next revision of the curriculum.

Feedback report from Faculty members:

All the faculty members have responded to our feedback request. Their suggestions are summarized below:

1. The syllabus of the course Power Electronic Converters should be fine-tuned with their associated applications into the area of Power Systems.
2. Include the concepts, sparse calculation in the course "Power system security and state estimation".
3. Some more FACTS controller deices could be included into the laboratory course Power systems for more practical understanding.
4. The course "Power System Optimization" could be made mandatory course as it would be useful for the project work.
5. Power quality issues in wiring and grounding should be addressed into the syllabus of the course Power quality.

Action taken report:

Suggestion might be considered in the next revision of the curriculum.

M. Tech. in Software Engineering**Feedback report from Alumni:**

Feedback was received from 40% of alumni belonging to 2013-14 and 2014-15 passed out batches and they:

1. Recommended to include Python programming.
2. Suggested to introduce Internet of Things lab.

3. Suggested to include more case studies and mini projects as a part of curriculum lab cycle.
4. Requested to introduce a new course on Data Science and also a course on Computer Forensics and Security Management.
5. Recommended to do project work and Apps using Free and Open Source Software (FOSS) tools.

Action taken report:

The suggestions might be considered in the next revision of the curriculum.

Feedback report from students:

Feedback was received from 80% of students belonging to 2015-16 and 2016-17 passed out batches and they are:

1. Requested to offer Artificial Intelligence course.
2. Recommended to introduce a laboratory course on Network Security.
3. Suggested to include experiments on Python Programming language.
4. Suggested to introduce Personality Development course as elective.
5. Requested to introduce a course on Entrepreneurship for Micro, Small and Medium Enterprises.

Action Taken report:

The suggestions might be considered in the next revision of the curriculum.

Feedback report from Faculty Members:

Feedback was received from all the members of faculty who taught the courses of the program and they:

1. Requested to introduce latest trends of Computer Science and Information Technology courses like Deep Learning, and Mobile Application Development.
2. Include Design trade-offs in Software Development Methodologies course.
3. Suggested to introduce Cyber Security Laws course as audit course.

Action Taken Report:

The suggestions might be considered in the next revision of the curriculum.

M. Tech. in Digital Electronics and Communication Systems

Feedback report from Alumni:

Feedback was taken from 2013-14 and 2014-15 passed out batches during the academic year 2015-16 and 2016-17. About 40% of them responded to our survey. Their feedback is summarized as follows:

1. Introduction of mini project as last experiment in the laboratory courses concretes in summing up the knowledge gained in laboratory.
2. To meet the industrial needs concepts of RTOS and Usage of IDE for embedded product development can be introduced as a case study in Embedded System Design course.

Action taken report:

The suggestions might be considered in the next revision of the curriculum.

Feedback report from Students:

The students of 2015-16 and 2016-17 Passed out batches were asked to give feedback for the curriculum improvement. About 80% of the students responded to our request and their suggestions are summarized below:

1. A new Laboratory course on Real Time System Modeling can be included in curriculum to better analyze the practical situations.
2. Speed control of DC/stepper motor can be introduced as an experiment in Embedded Systems Laboratory.
3. Flexible Displays, 4K Display systems with applications can be included in Display Technologies and Devices for better understanding.

Action taken report:

The suggestions might be considered in the next revision of the curriculum.

Feedback report from Faculty members:

Feedback report was taken from all the Faculty members who taught the courses of the program during 2015-16 and 2016-17 academic years. The suggestions are summarized below:

1. The concepts like Scheduling workload in networked embedded systems and Case study on Android OS can be included in the course Real Time Systems.
2. The topics like Acquisition of Spread-Spectrum Signals by Cell-By- Cell Searching, Reduction of Acquisition Time Topics can be included in Digital Communication Techniques.

3. Concepts on Embedded hardware architectures like ARM, PIC, Cortex and MSP can be included in Embedded System Design course.
4. MATLAB Simulation (Monte Carlo) may be introduced in Receiver Operating Characteristics and Neyman-Pearson Criterion for Radar signal Detection in the Communication laboratory course.

Action taken report:

The suggestions might be considered in the next revision of the curriculum.

M. Tech. in VLSI

Feedback report from Alumni:

Feedback was taken from 2013-14 and 2014-15 passed out batches during the academic year 2015-16 and 2016-17. About 40% of them responded to our survey. Their feedback is summarized as follows:

1. Introduction of mini project as last experiment in the laboratory courses concretes in summing up the knowledge gained in laboratory.
2. More algorithms can be added in the course Mixed Signal and Physical Design Automation Lab.
3. Standard tools can be used to discuss Necessity of standard cell libraries, Synthesis and Physical Design processes for the course ASIC Design.

Action taken report:

The suggestions might be considered in the next revision of the curriculum.

Feedback report from Students:

The students of 2015-16 and 2016-17 Passed out batches were asked to give feedback for the curriculum improvement. About 81% students responded to our request and their suggestion are summarized below:

1. A new Laboratory course on IC Fabrication may be included in the curriculum.
2. Advanced courses in the field of Image processing titled Pattern Recognition and Compression Techniques may be introduced in the curriculum.
3. Suggested to include one more lab in each semester to improve skills.

Action taken report:

The suggestions might be considered in the next revision of the curriculum.

Feedback report from Faculty members:

Feedback report was taken from all the Faculty members who taught the courses of the program during 2015-16 and 2016-17 academic years. Their suggestions are summarized below.

1. Design orientation for developing the VCOS, LNA, MIXERS, PLL and Power Amplifiers can be included in RFIC Design course.
2. The following changes can be made in the course Nanoelectronics
 - Carbon nanomaterial: nanotube and fullerenes is to be replaced with carbon nanotube.
 - In unit-III methods of nanotube growth is needed to be replaced with Methods of carbon nanotube growth
 - In unit-V Carbon Nanotube Devices Structure and Technology, Carbon Nanotube Transistor can be replaced with Carbon Nanotube Transistor.
3. Unit-V in Digital IC Design is already covered at UG Level. It can be replaced with latest topics.
4. The syllabus of System-On-Chip Design and Verification should be in par with the outside world for the benefit of students.
5. The concepts like Scheduling workload in networked embedded systems and Case study on Android OS can be included in Real Time Systems.
6. It is appropriate to move Floor Planning, Placement & Routing concepts in ASIC Design to Physical Design Automation course.

Action taken report:

The suggestions might be considered in the next revision of the curriculum.

M. Tech. in Communication Systems**Feedback report from Alumni:**

Feedback was taken from 2013-14 and 2014-15 passed out batches during the academic year 2015-16 and 2016-17. About 40% of them responded to our survey. Their feedback is summarized as follows:

1. Networks and Object –oriented programming may be included in Software Defined Radio to better understand radios and networks.
2. Introduction of mini project as last experiment in the laboratory courses concretes in summing up the knowledge gained in laboratory.

Action taken report:

The suggestions might be considered in the next revision of the curriculum.

Feedback report from Students:

The students of 2015-16 and 2016-17 Passed out batches were asked to give feedback for the curriculum improvement. The feedback was given by about 82% students and their suggestion is summarized below:

1. To take up projects on Antennas & Microwaves, Circuit design for Antennas & Microwave devices may be introduced in the course RF Circuit Design.
2. To focus on employability and emphasize fabrication issues, a course on fabrication can be included.
3. Suggested to include one more lab in each semester to improve skills.

Action taken report:

The suggestions might be considered in the next revision of the curriculum.

Feedback report from Faculty members:

Feedback report was taken from all the Faculty members who taught the courses of the program during 2015-16 and 2016-17 academic years. The following suggestions were considered for improvement in curriculum.

1. To further strengthen the course Adaptive Signal Processing, Sub-band Adaptive filters may be introduced.
2. MATLAB Simulation (Monte Carlo) may be introduced in Receiver Operating Characteristics and Neyman-Pearson Criterion for Radar signal Detection in the laboratory course.
3. The concepts like Smart Antenna analysis with different types of antennas, Interference of the transmitted signal due to various atmospheric conditions, Electro Magnetic Interference/Electro Magnetic Compatibility may be included in the course Smart Antennas.
4. The Advanced Digital Signal Processing course can be further strengthened by introducing types of multirate filter banks.
5. The topics like Acquisition of Spread-Spectrum Signals by Cell-By- Cell Searching, Reduction of Acquisition Time Topics can be included under unit-V in Digital Communication Techniques.

Action taken report:

The suggestions might be considered in the next revision of the curriculum.

M. Tech. in Computer Networks and Information Security

Feedback report from Alumni:

Feedback was taken from 2013-2014 and 2014-2015 passed out batches during the academic years 2015-2016 and 2016-2017 respectively. About 44% of the Alumni responded to the request in each year. The summary of the feedback is as follows:

- Course like Operating systems and virtualization would be interesting
- Penetration Testing and Vulnerability Assessment may be introduced
- Trusted Network Systems can be introduced
- Course based on Cyber-attacks would be a diversified course that can be introduced
- Students can make to learn how a risk can be detected and mitigated
- Security and analysis concepts on cloud computing can be introduced as a course

Action taken report:

- The suggestions might be considered in the next revision of the curriculum.

Feedback report from Students:

Feedback was taken from the students who were passing out during the academic years 2015-2016 and 2016-2017. About 83% of the Students responded to the request in each year. The summary of the feedback is as follows:

- Course on Malware analysis can be introduced
- Recent trend courses like Cloud Security and Analytics can be introduced
- New tools can be introduced in data warehousing and data mining lab
- Course based on Cryptosystems may be introduced
- Virtualization based course may be included or integrated with Advanced Operating System

Action taken report:

- The suggestions might be considered in the next revision of the curriculum

Feedback report from Faculty members:

Feedback was taken from all the faculty members of M.Tech(CNIS) program during the academic years, 2015-2016 and 2016-2017. The following were the suggestions made by the faculty which were considered for the improvement of the curriculum:

- Multicast routing and protocols can be included in Advanced Computer Networks Course

- Practical sessions may be included for Information Retrieval systems course
- Firewall policies, block chain technology should be added in Information Security
- Add IOT physical servers and cloud offerings in Internet of Things
- Addition of Identity Management is required in Cloud Computing Course
- Ddos-Introduction and types are essential and Ddos-Prevention Mechanisms are to be included in Ethical Hacking

Action taken report:

The suggestions might be considered in the next revision of the curriculum

Feedback report from Employer for all M. Tech. Programs:

Employer feedback was taken centrally. The feedback on curriculum was taken from employers who recruited 2013-14 and 2014-15 passed out batches of our students in the academic years 2015-16 and 2016-17. Companies such as Tata Consultancy Services, AT&T Global Business Services, Semantic Space, Cognizant and Prolifics Corporation suggested to include the following new courses in the relevant M. Tech. programs.

- (a) Advanced Algorithmic Analysis
- (b) Multicore and parallel programming
- (c) Malware analysis
- (d) Cryptosystems
- (e) Python programming
- (f) Network Security Lab
- (g) Power Electronics to Power Systems
- (h) Applied Intelligence to Drives
- (i) Internet of Things
- (j) MEMS/ NEMS
- (k) VLSI Signal/ Image Processing
- (l) Secure Communication
- (m) Analytics using cloud technology
- (n) Trusted Network Systems
- (o) Computer Forensics and Security Management
- (p) Artificial Intelligence

- (q) Cognitive technologies in power systems
- (r) Risk Management in Power Systems
- (s) MEMS
- (t) VLSI Signal Processing
- (u) EMI/ EMC
- (v) 5G
- (w) Stealth Tehnology

Action taken report:

Suggestions might be considered for revision of the curriculum in future.

Master of Computer Applications

Feedback report from Alumni:

Feedback was taken from 2014-15 passed out batch during the academic years 2016-17. About 40% of them were responded to our survey. Their feedback is summarized below:
:

1. Suggested to introduce industry related courses such as Data science, Python programming, R programming, and NOSQL databases.
2. Courses like Web programming & Object oriented programming through JAVA have to be strengthened by including latest concepts.
3. Encourage students towards more Online courses in emerging fields of Information technology.

Action taken report:

Suggestions might be considered in the next revision of the curriculum.

Feedback report from Students:

Students exit batch feedback was taken from 2016-17 passed out batch during academic year 2016-17. About 80% of them were responded to survey. Their feedback is summarized below:

1. Suggested to include separate laboratories for all core courses and real world applications for Data Warehousing and Data Mining and Information security laboratories.
2. Requested to include angular JS in Web programming, and refine the syllabus of Database Management Systems laboratory with Mongo DB, HIVE Programming in Big Data Analytics.

3. Requested to offer Cloud Computing using tools like salesforce.com to acquire in depth knowledge on the respective courses.

Action taken report:

Suggestions will be considered in the next revision of the curriculum.

Feedback report from Faculty members:

Faculty feedback is taken from all the members of faculty who taught the courses of the program during the Academic year 2016-17. All of them have responded and following are few valuable suggestions:

1. Suggested to introduce Tableau in Big Data Analytics laboratory and Security concepts in cloud computing.
2. Latest trends of Information Technology like Include Postgre SQL in DBMS Lab and Computer Oriented Operations Research courses have to be included.
3. Recommended to include the concepts of Micro processors in Computer Organization.
4. Suggested to include exercises on Book review to improve writing and speaking skills, A project on Information Transfer and Assignment on vocabulary to enhance the Language skills in the course English Language Lab
5. Suggested to include Concepts of SEBI- Guidelines, Introduction of latest accounting concepts 2014 and Tri dimensional break even analysis in the course Accounting and Financial Management
6. Suggested to introduce the concept of Group Cohesiveness and Compliance Conformity, compente4ncy mapping technique for HRP, contemporary sourcing and recruitment tools, and job training methods in the course Organizational Behavior and Human Resource Management

Action taken report:

Suggestions might be considered in the next revision of the curriculum.

Feedback report from Employer:

Employer feedback was taken centrally. The feedback on curriculum was taken in the academic years 2016-17 from employers who recruited 2014-15 passed out batch of our students. Companies such as Tata Consultancy Services, Wipro Technologies and Prolifics Corporation suggested to include the following new courses in the program.

- (a) R-Programming
- (b) NOSQL Databases

Action taken report:

Suggestions might be considered for revision of the curriculum in future.