Evidences for QLM metric 7.2.1:

Two Best Practices as Case Studies

7.2 Best Practices

7.2.1 Two Institutional Best Practices

SREE VIDYANIKETHAN ENGINEERING COLLEGE
(AUTONOMOUS)

Sree Sainath Nagar, A. Rangampet – 517 102

BEST PRACTICES

CASE STUDY – 1

on

CURRICULUM DEVELOPMENT FOR STUDENT HOLISTIC PROGRESSION

Contents

S. No.	Details
3.3	**Implementation**
A-7	Admission Diversity (Socio- Economic Background)
A-8	EAMCET Ranks During Admission
A-9	FDPs Conducted and Attended in Advanced Areas of the Domain
A-10	List of IT Tools used and FOSS
A-11	Available Data in Abstract
A-12	List of Relevant Journals and E-Content
A-13	Rubrics for Assessing Curricular Components, CO, PO and PSO
A-14	Technical Events to Achieve PO and PSO
4.	**EVIDENCE OF SUCCESS**
A-15	Successful Progression to Higher Studies
A-16	Securing Gainful Placement
A-17	Exploring Opportunities in Entrepreneurship
5.	**PROBLEMS ENCOUNTERED AND RESOURCES REQUIRED**
5.1	**Challenges**
5.2	**Resources Required**
A-18	Academic and Administrative Reforms from Academic Regulations
A-19	List of Industry Experts in BOS, AC and Industry Experts Visited for Guest and Expert Lectures
A-20	Experts Who Visited the Department from Reputed Universities
A-21	List of Advanced Labs, Research Labs and Activities of TAP Cell
6.	**NOTES**

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Case Study -1:

Title of the Practice: Curriculum Development for Student Holistic Progression

Objectives of the Practice:

- Imparting Knowledge on core domain and allied courses
- Develop Skills through experiential learning
- Create scope for Application through project based learning and
- Inculcate attitude to lifelong learning

The Context:

To raise standards to cope up with the challenges of the rapidly changing, technologically advanced; culturally diverse societies of today, thereby preparing globally competent students, the educational objectives are planned for establishing the curriculum for each program

The Practice:

Step-1: Need Assessment

A-1: Collection and analysis of survey from stakeholders on curriculum

Stake holders and the need from the curriculum

Students **:** Technically competent, globally sophisticated, culturally aware, innovative and entrepreneurial outlook.

Parents: Ward's Placement in reputed organizations/ motivation for higher studies in premiere institutes.

Teachers: Dissemination of knowledge, promotion of research, and the training of young and aspiring engineers to apply that knowledge for the general welfare. Create aspirants of tomorrow's world and advancing the frontiers of technology through research.

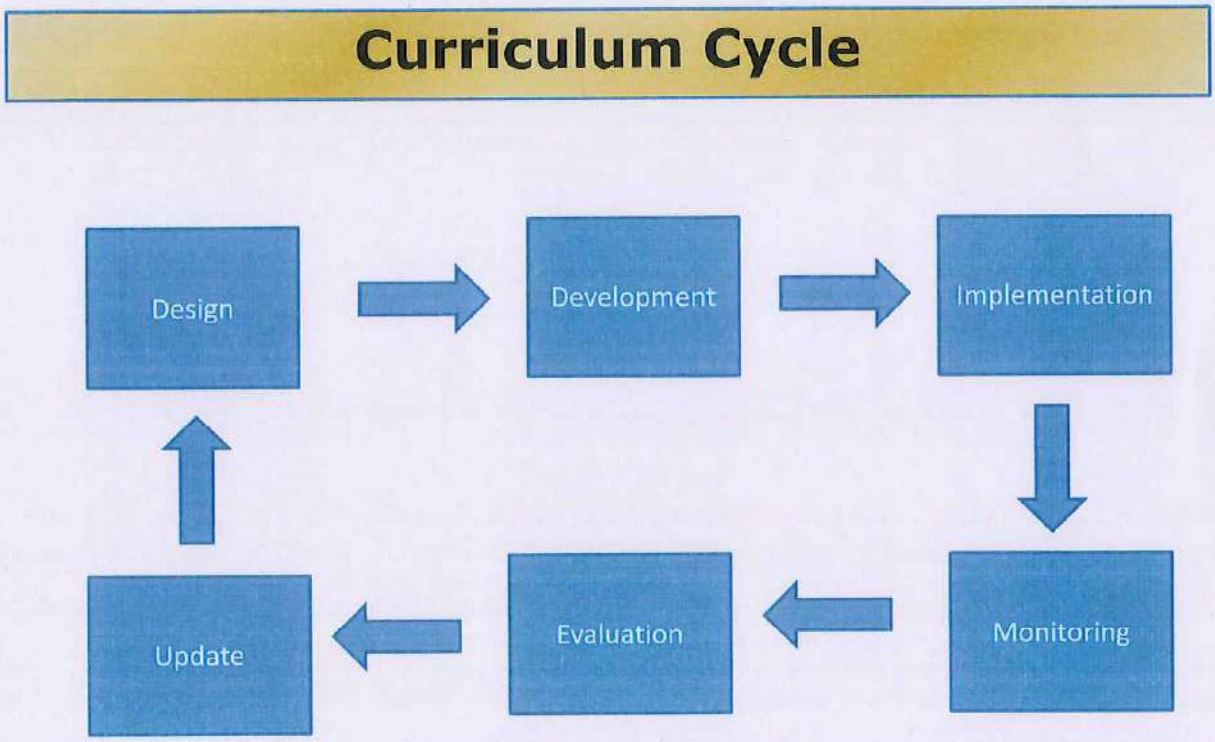
Alumni: Progressive professional career in industry/ R&D organizations.

Statutory Bodies (BoS, AC and GB): Compliance with their inputs/ guidelines.

Employers: Competent employees with futuristic ideas and ethical fabric.

Industry and R&D agencies: Employees with wide spectrum of skills and research zeal.

Step-2: Curriculum Cycle



- Course structures of programs are derived from the broad knowledge areas suggested by relevant American Professional Societies such as IEEE, ACM, ASCE, ASME and others professional entities and Industry

  A-2: Mapping Knowledge areas to ACM
- Articulation of program outcomes and program specific outcomes are done for effective course delivery and outcome assessment.

A-3: PEO, PSO design process and List

- Scope; Sequence; Continuity; Integration; Articulation and Balance are taken care to design each course of the respective program

A-4: Course structure

- Increased laboratory courses with exercises and innovative activities designed in Student Technical Associations to promote skill development

A-5: Increase in number of lab courses & list of Technical Association Activities in Skill development

- Self-learning exercises are given to students to foster self directed learning and thereby creating practice for lifelong learning

A-6: Teaching plan of two good courses showing some very good self learning concepts

Step-3: Implementation

- Student admission and selection analytics for understanding learning diversity

A-7: Admission diversity (socio- economic background and

A-8: EAMCET ranks during admission)

- Faculty development of the teachers to enable them to transact the curriculum for quality in teaching

A-9: FDPs conducted and attended in advanced areas of the domain

- The teaching and learning process is embedded with technology interventions

A-10: list of IT tools used and FOSS

- Diagnostic, formative and summative assessments for continuous evaluation of student performance

A-11: Available data in abstract

- Providing learning resources through library and internet

  A-12: list of relevant journals and e-content
- Establishing rubrics for curricular components to measure learning outcomes

  A-13: Rubrics for assessing curricular components, CO, PO and PSO
- Utilizing the student technical associations to design activities to meet Program Outcomes and Program Specific Outcomes

  A-14: Technical events to achieve PO and PSO

Evidence of Success:

4. Successful Progression to Higher studies **A-15: (Data)**
5. Securing gainful placement **A-16: (Data)**
6. Exploring opportunities in entrepreneurship **A-17: (Data)**

Problems Encountered and Resources Required

Challenges:

- Academic diversity in student intake
- Compliance to the affiliating University in terms of the degree of academic flexibility and operative freedom while making better-quality curriculum to suit industry standards and research needs

Resources Required:

- Associated academic and administrative reforms for effective implementation of the curriculum

  A-18: academic and administrative reforms from academic regulations

- Industry participation in statutory bodies such as Board of Studies and Academic Council to provide insights on contemporary courses suiting employability and demand

  A-19: List of industry experts in BoS, AC and industry experts visited for Guest and expert lectures

- Interactions with expert teachers from National Institutions to elicit inputs on the breadth, depth and balance of the courses in the program domains

  A-20: Experts who visited the department from reputed Universities

- Knowledge, computing, and other infrastructure resources such as Maker's space, research labs, Training and Placement Cell for acquiring holistic learning outcomes

  A-21: List of advanced labs, research labs and activities of TAP Cell

Notes:

It is always a quality initiative, if the curriculum serves the purpose of student development and helps students to pursue their personalized interest of either opting for progression to higher education / seek gainful placement / or engage in entrepreneurship. And the College is in the constant endeavor to continuously revise curriculum to attain better student learning outcomes and holistic progression

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Department of Computer Science and Systems Engineering

BEST PRACTICES

CASE STUDY – 1 (Department of CSSE)

on

CURRICULUM DEVELOPMENT FOR STUDENT HOLISTIC PROGRESSION

Summary

S. No.	Details
1.	**THE PRACTICE**
A-1	Collection and Analysis of Survey from Stakeholders on Curriculum
A-2	Mapping Knowledge Areas to ACM
A-3	PEO, PSO Design Process and List
A-4	Course Structure
A-5	Increase in Number of Lab Courses & List of Technical Association Activities in Skill Development
A-6	Teaching Plan of Two Good Courses showing Some Very Good Self Learning Concepts
A-7	Admission Diversity (Socio- Economic Background)
A-8	EAMCET Ranks During Admission
A-9	FDPs Conducted and Attended in Advanced Areas of the Domain

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A-10	List of IT Tools used and FOSS
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A-12	List of Relevant Journals and E-Content
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BEST PRACTICES

CASE STUDY – 2

on

TRAINING NEEDS ANALYSIS FOR FACULTY DEVELOPMENT AND ENHANCED PRODUCTIVITY

Contents

S. No.	Details
4.	**EVIDENCE OF SUCCESS**
A-6	Number of Faculty who got Ph.D Degrees
A-7	Any New Teaching Methods
A-8	Improvement in Results and Placements Data
A-9	List of Projects; Patents and Papers Published
5.	**PROBLEMS ENCOUNTERED AND RESOURCES REQUIRED**
5.1	**Challenges**
5.2	**Resources Required**
A-10	Institution's Strategic Development Plan
A-11	Institution's SWOT Analysis
A-12	FPADS Report of the Department
6.	**NOTES**

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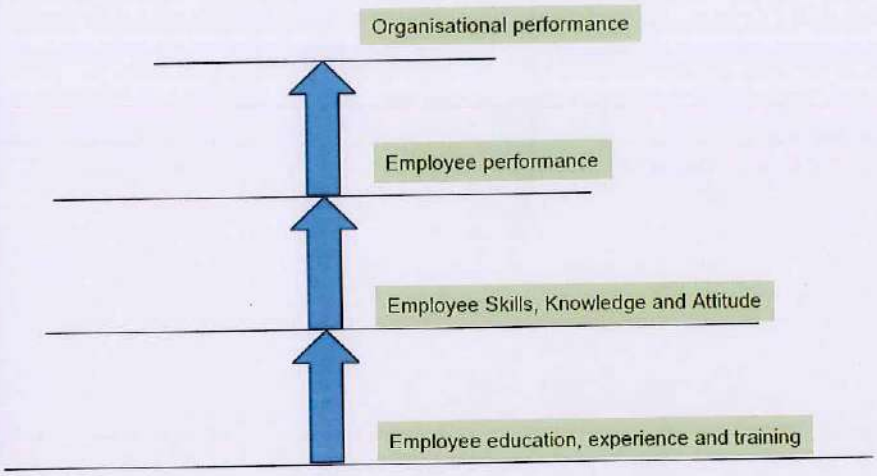
Case Study: 2

Title of the Practice: Training Needs Analysis for Faculty Development and Enhanced Productivity

Objectives of the Practice:

Objectives of Training Need analysis

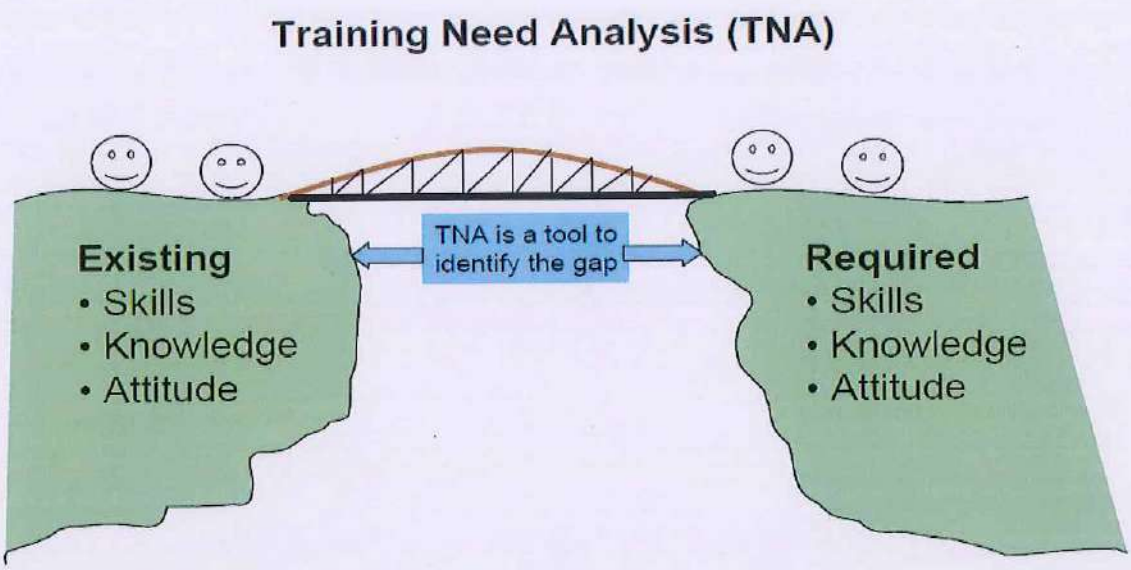


To train faculty in

- Domain knowledge
- Research competence
- Pedagogical skills

The Context:

TNA is a series of activities that is conducted in the organization to define the gap between the current and desired individual and organizational performances.



The Practice:

TNA is a systematic process based on specific information converging techniques. TNA gives performance improvement, introduction of new system, task or technology and organizational benefits.

Level 1: TNA of Individual Faculty

- Each staff member and faculty shall analyze his/her current knowledge and skills, and the desired knowledge and skills for effective performance of his/her current job profile as well as perceived future/prospective job profile.
- To take-up the exercise of TNA, staff and faculty are suggested to use the information/feedback

- While analyzing the training needs, a staff member shall align his/her personal development objectives with those of the department.
- In cases of training in specialized subject areas and R&D skills, faculty are expected to have communication with the organization(s) where such trainings are available in order to furnish information pertaining to the duration, period (tentative date) and trainer organization, in the TNA proforma (this will essentially be helpful to Head of Department and Principal in finalizing a Plan for deputing staff and faculty in a phased manner).
- All members of faculty shall submit the duly filled-in TNA proforma indicating training needs along with their development objectives, to the Head of Department.

A-1: TNA of individual faculty

Level 2: TNA of the Department

- Heads of Department should review the department's individual filled - in TNA proforma, make an attempt to align the individual development aspirations with the department's objectives/ priorities, and consolidate into a Departmental Training/Development Plan, and including Heads of Department own Training/development needs.
- Heads of Department should submit the Departmental Training/Development Plan along with an Undertaking that the same is resulted from an actual needs analysis of the Department, for Principal's approval.

A-2: TNA of the Department

Level 3: TNA of the Institution

Principal will review all Departments'/Sections' Training/Development Plans make an attempt to align it with the institution's objectives/priorities, and consolidate into an Institutional Training/Development Plan including Principal's own training/development needs.

A-3: TNA of the institution

Level 4: Governing Body's Approval

Principal shall recommend the Institutional Training/Development Plan along with an Undertaking that the same is resulted from an actual Training Needs Analysis of the institution, for Governing Body's approval.

A-4: Approval of GB

Level 5: Convergence of TNA

The exercise of TNA at various levels finally converges into an Institutional Training/Development Plan, comprising a short –term (up to three months) training/development plan and a long-term (above three months) Training / Development Plan.

A-5: Comprehensive Training plan

Evidence of Success:

- More members of faculty upgrading their qualification

  A-6: Number of faculty who got Ph. D degrees
- Improvement in teaching skills and adoption of new teaching styles

  A-7: Any new teaching methods
- Significant improvement in faculty competence in course delivery and creating curriculum content

  A-8: Improvement in results and placements data

- Sustained culture of research and increase in number of faculty research funding and publication output

  A-9: List of projects; patents and papers published

Problems Encountered and Resources Required

Challenges:

- Faculty opting for training programs in India and abroad sometimes become difficult as itinerary of the programs are conflicting with the academic calendar of the Institution.
- Deputing members of faculty for two or more weeks program during the course of a semester sometimes cripples the timetables and resource management of the institution

Resources Required

- Institution's Strategic Development Plan **A-10**
- Institution's (recent) SWOT analysis **A-11**
- Previous years' Development/Training plans
- Seniors' and/or Peers' feedback
- Students' feedback
- Feedback on previously attended training programs

  A-12: FPADS report of the department
- Any other relevant feedback

Notes:

It is evident that the college focuses its development by considering that the faculty contributions are vital. And continous capacity building of faculty in domain knowledge, research competence and pedagogical skills shall improve the learning outcomes of the students besides developing the departments by enhanced core competencies of the faculty in teaching and research.

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BEST PRACTICES

CASE STUDY – 2 (Department of ECE)

on

TRAINING NEEDS ANALYSIS FOR FACULTY DEVELOPMENT AND ENHANCED PRODUCTIVITY

Academic Year 2016-17

Summary

S. No.	Details	
1.	**THE PRACTICE**	
A-1	TNA of Individual Faculty	
A-2	TNA of the Department	
A-3	TNA of the Institution	
A-4	Approval of GB	
A-5	Comprehensive Training Plan	
2.	**EVIDENCE OF SUCCESS**	
A-6	Number of Faculty who got Ph.D Degrees	: **05**
A-7	Any New Teaching Methods	: **05**
A-8	Improvement in Results and Placements Data	
	No. of Students placed through Campus Placements	: **141**
	No. of Students Graduated without backlog	: **180**

S. No.	Details
A-9	List of Projects; Patents and Papers Published
	No. of Research Projects Sanctioned & On-going : **05**
	No. of Patents Filed : **02**
	No. of Papers published in Journals : **53**
	No. of Papers presented in Conference : **35**
3.	**PROBLEMS ENCOUNTERED AND RESOURCES REQUIRED**
A-10	Institution's Strategic Development Plan
A-11	Institution's SWOT Analysis
A-12	FPADS Report of the Department

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Weblink for Case Studies - Best Practices:

Link - 1: https://svec.education/wp-content/uploads/2018/11/Case-Study-1.pdf

Link - 2: https://svec.education/wp-content/uploads/2018/11/Case-Study-2.pdf