

**A Guest Lecture on**  
***"MATERIALS AND METALLURGY OF WELDING"***  
***30<sup>th</sup> August 2019***

***Jointly Organized by***  
***Indian Welding Society - Student's Forum***  
***&***  
***Micromachining Research Centre***

Welding is a fabrication process that joins materials, usually metals by causing fusion, which is distinct from lower temperature metal-joining techniques such as brazing and soldering, which do not melt the base metal. To boost the manufacturing growth, it is essential to introduce high productivity welding processes as well as physical metallurgy. With this objective, a guest lecture on "MATERIALS AND METALLURGY OF WELDING" was organized in the department on 30<sup>th</sup> August 2019. Dr. N. Murugan, Professor, Department of Robotics and Automation, PSG College of Technology, Coimbatore delivered a lecture on Welding. The program began with the felicitation to the speaker Dr. N. Murugan.



*Felicitation to Dr. N. Murugan by HOD (ME) & Program Conveners*

After the inaugural session, Dr. N. Murugan delivered a lecture on "Introduction to Welding Processes, Welding Metallurgy and Phase transformations." He explained the concepts on history and principle of welding, types of welding processes, metallurgical concepts and phase transformation occur during welding operations as well as the current importance of welding in various application sectors. He also emphasized the need and development made in different types of welding processes and major influencing parameters to be considered while performing the welding operation. Finally, Dr. N. Murugan concluded with exploring the applications and future scope in welding techniques employable to various industries.



*Dr. N. Murugan Professor, Department of Robotics and Automation, PSG College of Technology, Coimbatore delivering the lecture*

In the next session, Dr. N. Murugan discussed the weldability issues in Aluminium and its Alloys to insist the importance of aluminium material and its alloys. He brought awareness among the students with real life applications in the areas of aluminum alloys in welding technology. During the talk, he also emphasized challenges and opportunities

available in the field of welding metallurgy and insisted students to appear for various competitive exams. In addition, Dr. Murugan advised the students to select their master degree course in the challenging area like Welding Engineering and pursue in the reputed Institutions/Universities.

Later, Dr. Murugan had an elaborate interaction session with students and faculty of mechanical department during which he clarified the questions raised by the students. Finally, he advised the students to shape their career in the right path for long term sustainment in the modest competitive world.