



- Constituent College of JSS Science and Technology University
- Approved by A.I.C.T.E
- Governed by the Grant-in-Aid Rules of Government of Karnataka
- Identified as lead institution for World Bank Assistance under TEQIP Scheme



### DIAMOND JUBILEE YEAR :: 1963 - 2023

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An online Faculty Development program on “Analytical Techniques for nanomaterials” was organized by department of Electronics and Communication engineering, JSSSTU in association with Electronics and ICT academy, NIT Warangal from 18th July to 25th July 2022.

The inauguration of online FDP on “Analytical techniques for nanomaterials” was held on Monday 18th July 2022 at 9.30. The inaugural function begun with the divine blessings of His holiness Jagadguru Sri. Sri. Shivarathri Deshikendara Mahaswamiji, President, JSSMVP, Mysuru. Prof. Supreetha M, Assistant Professor, department of ECE, JSSSTU, Mysuru delivered the welcome address. She welcomed all the guest of honor and participants to the FDP. The chief guest, Prof. P Srihari Rao, Head, Department of ECE, NIT Warangal addressed the gathering. He had explained about the ICT online programs arranged by NIT Warangal and facilities available in their department. Dr. Sudarshan Patil Kulkarni, I/C Head, department of ECE , JSSSTU, Mysuru, briefed about the department, university and enlightened on the workshop .

Dr. H R Mahadevaswamy, Joint director Technical Education, JSSMVP, Mysuru, given the presidential remarks. He talked about the JSS science and technology university facilities and programs. Also he briefed about the applications of nano materials in the sensors, medical field, automation and even in the paints. He touched all the corners of science and technology applications of material science and its usage to modern world. Prof. Anitha S Prasad, Assistant Professor, department of E&C, JSSSTU, Mysuru thanked each and every one who were instrumental in organizing the FDP and the participants.

Eminent speakers from various universities from JSS S&TU(SJCE) NIT Warangal, and academics from IIT's and NIT's and industries delivered the lectures in FDP.

The FDP focused on the science at the nanoscale is observation of selected material properties. Newer tools, methods and analyses are required to understand phenomena at the nanoscale.



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Observation of materials on the nanoscale can be done with electrons, photons, scanning probes, ions, atoms, etc. A range of techniques are available in each of these areas and a systematic application of several of the tools lead to a complete understanding of the system. This FDP delivered information on analytical techniques carried out to gain knowledge on how the nano dimension particles exist in a given system at the nano level. The course covered various topics like Microscopic Techniques, X- Ray diffraction(XRD), X-ray photoelectron spectroscopy (XPS), Sensimer, Universal Testing Machine (UTM), Vector Network Analyzer(VNA), Differential Scanning Calorimetry and Thermogravimetric Analysis (DSC and TGA).