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H.O.D., Production Engineering

Coordinators:

Dr. Trupti Ranjan Mahapatra
Dr. Debadutta Mishra
Lt. Birendra K Barik

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ABOUT US

Veer Surendra Sai University of Technology (VSSUT), Odisha (formerly known as University College of Engineering (UCE), Burla) was formed by Odisha Act 9 of 2009 by upgrading to a Unitary State University, which came into force from 1st day of July 2009. VSSUT is located at the foothill of famous Hirakud Dam – longest in Asia. Burla is known as Intellectual Capital of Odisha with VSSUT, VSS Institute of Medical Science and Research, Sambalpur University, MCL, WESCO and IIM Sambalpur. It is located 12 KM away from Sambalpur railway station and 3 KM away from Hirakud railway station. VSSUT, Burla has carved a niche for itself among the best technical institutes in India and is a dream institute for many budding engineers. The University offers B. Tech, M.Tech, Dual Degree, M. Sc, Int. M. Sc., MCA and Ph. Ds. The university is surrounded by a large number of Government, public and private industrial sectors such as OHPC, HINDALCO, NALCO, NTPC, OPTCL, Vedanta Aluminium Ltd. and Bhusan Steel Plant. The institute has an excellent placement record with a number of top ranking companies visiting the campus every year.



The Production Engineering department was started in the year 1996 and presently is rich heritage of academic excellence, innovative curriculum, effective classroom teaching, application oriented practices, well equipped laboratories and updated workshops, excellent placement record, industry institute interaction and top of the line faculty members with outstanding research abilities. Now, the department runs B. Tech, M. Tech. (Manufacturing Systems Engineering and Robotics and CAD/CAM) and Ph.D.

**AICTE Training and Learning
(ATAL) Academy sponsored**



**5 Days Online
Faculty Development Program (FDP)**

**on
3D Printing Application
in
Design and Manufacturing
during**

18th - 22th January 2021

Coordinator

Dr. T. R Mahapatra, Associate Professor
Co-Coordinator
Dr. Debadutta Mishra, Professor
Lt. Birendra K Barik, Assistant Professor

Organized by



Department of Production Engineering
Veer Surendra Sai University of Technology
Burla, Odisha, 768018, India.
www.vssut.ac.in

ABOUT ATAL ACADEMY

All India Council for Technical Education (AICTE) through its newly established AICTE Training And Learning (ATAL) Academy have started unique faculty development programs in various thrust areas of modern technology. 200 such programs have already been conducted in various government institutions benefitting around 10,000 faculties, research scholars & PG students during the FY 19-20.

OBJECTIVE

Manufacturing concepts are rapidly changing and Manufacturing processes are completely being redefined in the last decade. Industry 4.0, digitalization and IoT are at the core of next generation manufacturing technologies. Additive Manufacturing, considered to be one of the cornerstones of next generation digital manufacturing, is replacing/will replace some of the traditional manufacturing methods in several industries not only in our country but also globally. For digital transformation of manufacturing industries, it is critical that scientific research and R&D studies on Additive Manufacturing technologies need to be shared on a common platform where scientific community and researchers from industry come together.

The workshop will address to individual researchers and institutions interested in the development and/or implementation of 3D Printing technologies. This will give excellent academic forum for sharing knowledge and results in theory, design, methodology and applications of additive manufacturing in different disciplines of engineering as Mechanical, Metallurgy, Material Science, Biotechnology, Biomedical, Architecture etc. The programme aims to enable participants to learn the applications of 3D Printing and also Biomedical modeling so as to empower them to offer a course on 3D printing technology at their respective institutions and impart the knowledge and skills related to 3D printing technologies, selection of material and equipment and product development in Industry 4.0 environment.

COURSE CONTENT

The faculty development program (FDP) will cover but is not limited to following topics:

- ✚ Emerging trends in 3D Printing Technologies and its application
- ✚ Basics of 3d printer, Functions of the 3d printer's parts, Assembling the 3d printer and Basics of Firmware
- ✚ Types of 3D Printing and Materials for 3D Printing (Additive Manufacturing) Processes
- ✚ Design/CAD for 3D Printing (Additive Manufacturing)
- ✚ Software flashing and connections, Final Assembly Test print
- ✚ Process Planning and Post-Processing Operations for 3D Printing
- ✚ Product Quality Control of 3D Printing
- ✚ Novel Materials and Advances in Additive Manufacturing
- ✚ 3D Printing Processes I : Polymer, ceramic and metal Printing;
- ✚ Functionally Graded Materials in 3D Printing
- ✚ Decision Making in Material and Technology Selection of 3D Printing.

EVENT DETAILS

The events of the online seminar include:

- ❖ Inaugural Ceremony
- ❖ 14 Technical sessions @ 2 hours/session
- ❖ Q & A with experts
- ❖ Quiz Test and Valedictory Ceremony
- ✓ All the sessions will be conducted **ONLINE** in Googlemeet platform.
- ✓ An online test will be conducted by the coordinator at the end of the program.
- ✓ E-certificates shall be issued by the ATAL Academy to participants who have attended the program with minimum 80% attendance and scored minimum 60% marks in the test.

RESOURCE PERSONS

Academicians from premier institution like IITs, NITs, IISc, Universities, and experts from Industries as well as R&D Organizations having expertise in engineering domain are invited as Resource Person for this program.

IMPORTANT GUIDELINES

- ✚ Faculty members of the AICTE approved institutions, Research scholars, PG Scholars, participants from Government, Industry (Bureaucrats/ Technicians Participants from Industry etc.) and staff of host institutions are eligible to apply for the FDP.
- ✚ Not more than 30% Faculties/research/PG scholar should be from Host Institution.
- ✚ There is no registration fee for the participants.
- ✚ Interested participants from industry, academic and research community are required to register compulsorily in the following link:
✚ <https://www.aicte-india.org/atal> Or
✚ <https://atalacademy.aicte-india.org/signup>
- ✚ Seats are limited (maximum 200) and the participants are selected by organizers on first come first serve basis.
- ✚ Last date of registration: 31st December 2020

CONTACT DETAILS

For any queries regarding this programme, please contact:

The Coordinators ATAL FDP
Department of Production Engineering,
Veer Surendra Sai University of Technology
Burla, Sambalpur-768018, Odisha, India
Email: trmahapatra_pe@vssut.ac.in
dmvssut@gmail.com;
birenbarik_pe@vssut.ac.in
Ph: +91-7978035018/
+91-8895140999/
+91-8297969444