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# Coordinators: Prof. Debadutta Mishra Dr. Trupti Ranjan Mahapatra

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Ms. Sunita Sethy

#### **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, 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 richheritage academic excellence. innovativecurriculum, effective classroom teaching, application oriented practices, well equippedlaboratories and updated workshops, excellentplacement record, industry institute interaction andtop of the line faculty members with outstandingresearch abilities. Now, the department B. Tech, M.Tech. runs (Manufacturing Systems Engineering and and CAD/CAM) Robotics and

TEQIP-III Sponsored Online
Workshop
on

## Optimization Tools in Manufacturing Process

(OTMP-2020)

8<sup>th</sup> - 9<sup>th</sup> September 2020



Coordinators

Prof. Debadutta Mishra

Dr. Trupti Ranjan Mahapatra

Organized by



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

#### **OBJECTIVE**

Experimentation is a frequent activity of PG students, research scholars as well as the faculties not only of production/manufacturing engineering but of every branch of engineering as well and they usually use primitive strategies to carry on their experiments. An understanding of the Design of experiments (DOE) is very much essential to determine the relationship between factors affecting a process and the output of that process. The performance of the process can be improved by applying optimization to the simulation model with respect to its process control parameters. In order to find the optimum solution, minimize cost and to maximize simultaneously: production rate Single objective optimization as well as multi-objective optimization approaches should be explored.

The objective of this workshop is to impart a holistic view of the fundamentals of experimental designs, analysis tools and techniques, interpretation. It also aims to provide basic knowledge and in-hand experience to academicians and researchers (specifically PG and PhD scholars) from different disciplines to acquire a clear vision on the diverse optimization techniques from fundamentals to applications. After successful completion of the workshop the participants will have a comprehensive understanding of the basics of optimization of process parameters during their machining and will be able to apply this knowledge for the optimal design and analysis of response of interest from an experiment.

#### **COURSE CONTENTS**

- Particle swarm optimization (PSO)
- **Utility and TOPSIS**
- 4 Artificial Neural Network (ANN)
- ♣ Analytic Hierarchy Process (AHP)

#### **ELIGIBILITY**

The programme is open to Faculty Members, Research Scholars, PG/UG Students of AICTE/UGC affiliated Institutions/Universities as well as Industry Personnel.

#### **REGISTRATION AND SELECTION**

There is no registration fee for the participants.

Interested participants from industry, academic and research community are required to submit online application through The following Google form link or scanning the QR Code, if necessary.

https://forms.gle/x4zZFJyLKkLJ17DKA



- Total seat is limited to 50.
- Applicant will be selected based on first come first service.
- The selected applicants will be informed about his/her selection through Email/Whatsaap on 07-09-2020.

#### **SPEAKERS**

The course lectures shall be delivered by eminent speakers invited from NITs, IITs and other premier institutions of India.

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#### **EVENT DETAILS**

The workshop will provide a unique opportunity for participants to understand the recent advances in optimization tools implemented in Manufacturing Process. The events of the online workshop include:

- Inaugural Ceremony
- Technical sessions of 8 hours
- 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.
- ✓ The E-certificates shall be issued to those participants who have attended the program with minimum 80% attendance and scored minimum 60% marks in the test.

For any queries regarding this programme, please contact:

The Coordinators "OTMP-2020"
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