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Vice Chancellor, VSSUT

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H.O.D., Production Engineering

Coordinators:

Prof. Debadutta Mishra
Dr. Trupti Ranjan Mahapatra
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

Artificial Intelligence and Machine Learning

during

22nd – 26th November 2021

Coordinator

Dr. Debadutta Mishra, Professor

Co-Coordinators

Dr. T. R Mahapatra, Associate 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

The Robotics and Autonomous systems is an interdisciplinary field which interacts and combines with various engineering branches of electrical, mechanical and computer science/information technology. Fueled by recent advances in computer vision, sensing, digitization, fabrication and understanding the dynamics of physical systems, may open for new technological advances in Robotics. Robotics may find applications range from machine tools, autonomous vehicles, medical, process industry for automation, military. Some applications are already mature and new ones emerge every day. The main objective of the course is to give the participants introduction to the dynamics of robotic systems, multibody dynamics, dynamic Balancing and optimization of mechanisms including Robotic Systems and then hands on computer-aided design. This course provides basic understanding of mathematical methods for modeling and control of robot manipulators. Machine learning and artificial intelligence is an integral part in understanding of robotics, will be discussed. A practical session on integration of hardware with software is also included for real world applications. It also aims to facilitate the exchange and dissemination of ideas among the faculties of Science, Technology and Engineering stream about new contemporary development in the domain of Robotics, collaborative workspace, and advanced manufacturing technology in general and in particular among industry people. Also, to provide a platform to present innovations and research in robotics, its application in industry to improve productivity and efficiency in order to make Indian industries to stand with an edge of advantage in contemporary cut-throat competitive world of manufacturing/production such that to reach out with sustenance to the aim of “Make In India” and defense production autonomy.

COURSE CONTENT

- Supervised and unsupervised machine learning
- Prediction using Linear Regression;
- prediction using Logistic regression
- Customer churn prediction using Decision tree & Random Forest
- Auto mpg data set analysis using ANN-Regression
- Predict Titanic Survivors using Artificial Neural Network classification
- Machine learning using Python
- Hands on training

Each course will be demonstrated via Case study through lab-based computer sessions and hand on practice by solving real life engineering problems. Participants should attend preferably with help of Desktop/Laptop with Internet Connectivity, as there is Case study through lab-based computer sessions and hand on practice.

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. (meet.google.com/nbr-kwym-jpm)
- ✓ 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: 20th November 2021

CONTACT DETAILS

For any queries regarding this programme, please contact:
The Coordinators ATAL FDP
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