STTP on "Applications of AI/ML in Biomedical Signal Processing and Computer Vision (BSPCV)"

Sponsored by Soft Computing Research Society (SCRS)
July 17-21, 2023
Pandit Deendayal Energy University, Gandhinagar

ABOUT THE EVENT

Biomedical Signal Processing and Computer Vision are two closely related fields that have become increasingly important in recent years, especially with the usage of emerging technologies such as Artificial Intelligence (AI) and Machine Learning (ML). Biomedical signal processing involves acquiring and preprocessing physiological signals and extracting meaningful information to identify patterns and trends within the signals. Sources of biomedical signals include neural activity, cardiac rhythm, muscle movement, and other physiological activities. Signals such as electrocardiogram (ECG), electroencephalogram (EEG), electromyography (EMG) can be captured non-invasively and used for diagnosis and as indicators of overall health. Computer Vision, on the other hand, is a field that enables computers and systems to derive meaningful information from digital images, videos and other visual inputs, and take actions or make recommendations based on that information. This STTP is meant for UG/PG/PhD students.

ABOUT THE UNIVERSITY

Pandit Deendayal Energy University (PDEU) formerly Pandit Deendayal Petroleum University (PDPU) has been established by Gujarat Energy Research and Management Institute (GERMI) as a Private University through the State Act enacted on 4th April, 2007. The 100 acre campus of PDEU is located in Gandhinagar, which is the capital city of Gujarat and located 23 km North from Ahmedabad. PDEU is recognized by UGC under section 2(f) and accredited by NAAC A++ Grade.

ABOUT THE SCHOOL

School of Technology (SoT) intends to focus on technological education, research and service that anticipates, and meets, the need of tomorrow's world. It is expected that engineering graduates from School of Technology will care about issues that technology can make difference whether these issues are health, security, economic well-being or sustainability of world and values. The School is to provide national and international Undergraduate, Postgraduate and doctoral education.

ABOUT THE DEPARTMENT

Department of Information and communications technology (ICT) encompasses communication and information devices and their applications- radio, television, cellular phones, computer and network hardware and software, satellite systems and many other areas. The department offers B.Tech. (ICT), M.Tech. (AI) and full-time/part-time PhD programmes to cater to the diverse needs of the related industry. The course structure is based on Choice Based Credit System (CBCS)

REGISTRATION

Fees:

- PDEU Students/Faculty: ₹ 500 + 18% GST = ₹ 590
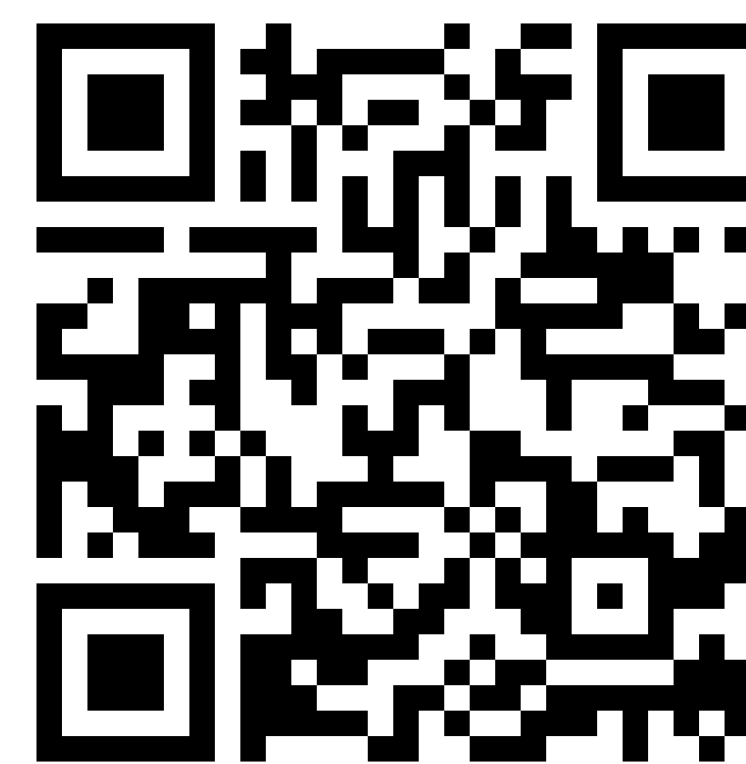- External Students/Faculty: ₹ 1000 + 18% GST = ₹ 1180

Fee Includes:

- Access to all sessions of the STTP
- Lunch and networking Tea during the event
- Registration Kit
- Resources for Hands-on sessions

LINKS

more details   to pay   to register

webpage: https://sites.google.com/view/sttp-bspcv-ict-pdeu/home

fee payment: https://onlinepayment.pdpu.ac.in/conferences/

registration: https://forms.gle/vP7RVxGNvKdjZa8a8

SPEAKERS

- **Dr. K. P. Miyapuram, IIT Gandhinagar**
  Research interests: Computational cognitive science, Neuroimaging (EEG, fMRI), brain computer interface

- **Dr. Karla P. Mercado-Shekhar, IIT Gandhinagar**
  Research interests: Quantitative ultrasound techniques, High-frequency ultrasound imaging

- **Dr. Manish Khare, DAIICT Gandhinagar**
  Research interests: Image Processing and Computer Vision, Human Action Recognition, Medical Imaging, Machine Learning

- **Dr. Siddharth Dabhade, NFSU, Gandhinagar**
  Research interests: Hyperspectral biometrics, neural network, deep learning, and pattern classification

- **Dr. Nitin Singh Rajput, PDEU Gandhinagar**
  Research interests: AI, ML, Bio-Inspired Algorithms and Swarm Intelligence, IoT, Intelligent Transportation Systems, Smart Cities

- **Dr. Paawan Sharma, PDEU Gandhinagar**
  Research interests: Internet of Things (IoT), Image Analysis, Machine vision, Machine learning, communication systems.

- **Dr. Soumyashree Soumyaprakash Panda, PDEU Gandhinagar**
  Research interests: Nanophotonics, Metaoptics, Computational Electromagnetics, Inverse Design, Scientific Machine Learning

- **Dr Mohendra Roy, PDEU Gandhinagar**
  Research interests: Artificial Intelligence, Machine Learning, Physics of BioInspired Systems, BioPhotonics, Biomedical Imaging

MODE OF DELIVERY

- The event will be held in offline mode at PDEU Gandhinagar

- Only 70 seats (35 internal and 35 external) on first-come-first-serve basis

- Interactive lectures and hands-on sessions will be the key constituents

COMMITTEE

Chief Patron:
Prof. (Dr.) S. S. Manoharan, Director General, PDEU Gandhinagar
Patrons:
Prof. (Dr.) Dhaval Pujara, Director-SoT, PDEU Gandhinagar
Dr. Ganga Prasad Pandey, HoD-ICT Department, PDEU Gandhinagar
Organizers:
Dr. Ritesh Vyas, Assistant Professor, ICT Department, PDEU Gandhinagar
Dr. Santosh Satapathy, Assistant Professor, ICT Department, PDEU Gandhinagar