Joint Online Faculty Development Programme
Machine Learning for Computer Vision
June 29 to July 8, 2020

Resource Persons
- Prof. P.K. Biswas, IIT Kharagpur
- Dr. Partha Pratim Roy, IIT Roorkee
- Dr. Santosh Viparthi, MNIT Jaipur
- Prof. Aparajita Ojha, IIITDM Jabalpur

Details

Patron
Prof. P. K. Jain
Director, NIT Patna

Coordinators
Dr. Mukesh Kumar, NIT Patna
Dr. Subodh Srivastava, NIT Patna

Organized by
E&ICT Academy, NIT Patna

About NIT Patna
National Institute of Technology Patna is the 18th National Institute of Technology created by the Ministry of H.R.D. Government of India after rechristening the erstwhile Bihar College of Engineering Patna on 28.01.2004. The Institute imparts high level education training, research and development in science, engineering technology and humanities along with high quality education and values at UG, PG and Ph.D. level. At present the Institute offers courses in six major technical disciplines viz. Architecture, Civil Engineering, Computer Science & Engg., Electrical Engg., Electronics & Communication Engg. And Mechanical Engg. It also consists of well-established departments of Physics, Chemistry, Mathematics and Humanities and Social Sciences.

About E&ICT Academy Patna
Ministry of Electronics and Information Technology, Government of India has instituted seven Electronics and Information & Communications Technology (ICT) Academies of which, the academy of NIT Patna is one. The Academy at NIT Patna aims to design and organize basic as well as specialized training programmes in niche areas of electronics and ICT for the development of required knowledge base, skills and tools to equip the teaching community with better knowledge and understanding.

For more details visit:
http://www.nitp.ac.in/ict/index.php
Contact No.: 8984142557, 8090318878 Email: eictapatna@nitp.ac.in
Objective & Scope

Machine learning in Computer Vision is a coupled breakthrough that continues to fuel the curiosity of startup founders, computer scientists, and engineers for decades. It targets different application domains to solve critical real-life problems basing its algorithm from the human biological vision. These real-life problems keep us at bay as it aims to provide solutions using computer vision. This involves methods of acquiring, processing, analyzing, and understanding digital images, and extraction of data from the real world to produce information. This course focuses on various sub-domains such as object recognition, video tracking, and motion estimation, thus having applications in medicine, navigation, and object modeling.

Course Contents

- Introduction to image processing and computer vision (CV).
- Introduction to artificial intelligence (AI) and machine learning (ML).
- Introduction to deep learning (DL).
- Understanding convolutional neural network (CNN) architectures for CV.
- Motion detection and depth estimation (DE).
- Object detection using CNN
- Applications of CNN.
- Practice sessions on implementations of CNN using Python, Tensorflow and Keras.

Key Features

- Online / Live lectures sessions by subject experts.
- Comprehensive tutorials and practice notes.
- Online lab and training sessions.
- Follow up sessions and discussion forums on research problems and internships.

Course Fee Details

<table>
<thead>
<tr>
<th>Category</th>
<th>Fee (INR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic (student/faculty)</td>
<td>500 (GEN/OBC) / 250 (SC/ST)</td>
</tr>
<tr>
<td>Industry People/Others</td>
<td>1000 / 500 (SC/ST)</td>
</tr>
</tbody>
</table>

- Online payment details

Bank Name: Allahabad Bank
Account Name: NIT Patna
Account No.: 50380476798
IFSC Code: ALLA0212286

Link for registration:
https://forms.gle/fEC9tkrxhdhjTFBRA

For more details visit:
http://www.nitp.ac.in/ict/index.php
Contact No.: 8984142557, 8090318878 Email: eictapatna@nitp.ac.in