TEQIP-III Sponsored Short Term Course on

MACHINE LEARNING IN COMPUTER VISION AND PATTERN RECOGNITION (MLCVPR-2018)

February 05 - 09, 2018

Course Coordinators:
Dr. Debashis Nandi (Department of CSE)
Dr. Subhrabrata Choudhury, Dept. of CSE
Dr. Mrinal Kanti Mandal (Department of Physics)

National Institute of Technology Durgapur
Mahatma Gandhi Avenue
Durgapur 713 209

Last date of registration: January 31, 2018

THE INSTITUTE

National Institute of Technology Durgapur (NITD) is a leading technical institute offering undergraduate, postgraduate and doctoral programmes in various disciplines of engineering, technology, science, social science and management. The education system is holistic with equal importance being attached to all-round development of the students. NITD was established as a Regional Engineering College (REC) in 1960 as a joint venture of the Government of India and Government of West Bengal. REC Durgapur was converted to NIT Durgapur under the full administrative and financial control of the Ministry of Human Resource Development of Government of India with a Deemed University status on 3rd July, 2003. Subsequently NITD has been given the status of a University by the UGC Act. The Institute was declared an **Institute of National Importance** by the Government of India on August 15, 2007.

The city of Durgapur is recognized as one of the fastest developing Tier–II cities in the national scenarios. Durgapur is situated at a distance of about 180 KMs from Kolkata. It is located right on the major railway and expressway (NH-2) connecting Kolkata to Delhi and Durgapur can be reached from Kolkata (and vice versa) in ~ 2 hrs. 30 mins.

THE DEPARTMENT

Department of Computer Science and Engineering of NIT Durgapur is one of the leading Departments in terms of teaching qualities and research activities. The department has been offering undergraduate course in CSE and IT. Within a very short span of time, the department has created an excellent learning environment with dedicated young faculty members, technical staff, 'state-of-the-art' laboratories and innovative academic processes. The department provides computational facilities for system level programmers, application development and research. The Department, over the years, is successfully undergoing several projects sponsored by the DST and DIT, Government of India. A number of students are working at present for their Ph.D. degrees undergoing research under supervision of several faculties. Theoretical and experimental investigations are being carried out in the frontier areas like Modeling & simulation of Networks, Optical Burst Switched Network, Distributed Systems, Wireless Networks, Knowledge Management, data mining and Case based reasoning, Swarm Robotics, Soft computing, cryptography and network security, VLSI testing, distributed computing, software engineering, image processing, algorithms and applications, chaos and security, bioinformatics and several other allied and interdisciplinary domains. The department has been offering three post graduate courses. Many students who have received their M.Tech degrees from this Department are serving now in different Institutes of higher learning in India.

ABOUT THE SHORT TERM COURSE

Computer vision is a research to provide computers with human like perception capabilities so that they can sense the environment, understand the sensed data, take appropriate actions, and learn from this experience in order to enhance future performance. The field has been evolved from the application of classical pattern recognition and image processing methods to advanced techniques in image understanding like model-based and knowledge-based vision. Recently, Computer vision is successfully applied in real-world applications, such as navigation, target recognition, manufacturing, photo interpretation, remote sensing, and computer aided medical diagnostic systems etc. This makes computer vision and pattern recognition an active area of research.

The field of machine learning is driven by the idea that computer algorithms and systems can improve their own performance with time. Machine learning has evolved from the relatively "knowledge-free" general purpose learning system, the "perceptron", and decision-theoretic approaches for learning to symbolic learning of high-level knowledge, artificial neural networks, and genetic algorithms. With the recent advances in hardware and software, a variety of practical applications of the machine learning research is emerging. Recently, deep learning has become a buzzword in machine learning and is being used to solve many recognition problems with higher efficiency.

The objectives of the short term course is to bring the researchers and technocrats from different parts of our country to a common gathering for exchanging and sharing the knowledge about the recent developments in computer vision and pattern recognition (CVPR), machine learning algorithms and their applications to solve CVPR problems.

TOPICS TO BE COVERED
- Machine Learning
- Pattern Recognition
- Deep learning
- Digital Image Reconstruction and Processing
- Image processing via sparse representation
- Biometrics
- Applications of Machine learning in computer vision.
- Character Recognition

RESOURCE PERSONS
The resource persons constitutes experts/senior faculty members from NIT Durgapur and various guest speakers from other reputed institutions and industries including ISI, BESU, IIT, Industries, Research Institutes, etc.
Tentative Resource persons:

1	Prof. A. Basu	Director, NIT Durgapur
2	Prof. A. K. Ray	Director, IIEST, Shibpur, Howrah
3	Prof. P. K. Biswas	IIT, Kharagpur
4	Prof. S. K. Pal	ISI, Kolkata
5	Prof. P. Maji	ISI, Kolkata
6	Prof. S. Mukhopadhyay	IIT, Kharagpur
7	Prof. U. Pal	ISI, Kolkata
8	Dr. D. Sheet	IIT, Kharagpur
9	Prof. G. Sanyal	NIT Durgapur
10	Dr. A. Chowdhury	Jadavpur University

WHO CAN ATTEND THE COURSE
The course is aimed to attract and bring together Faculty Members, Scientists, Engineers, Technologists, Research Scholars and Final Year UG/PG students from Academic and Research Institutions and Industries. The participants will be benefitted immensely and will get new insights and knowledge about the topic through close interactions/discussions with the Senior Faculty Members/Scientists and Experts of the respective field during the lecture sessions as well as in some laboratory sessions.

BOARDING & LODGING
Boarding, lodging and travel expenses shall be borne by the participants. Several good hotels are available in and around Durgapur. Participants may contact directly or through the coordinator(s) for accommodation in Hotels.

Participants	Fees
Participants from Academic/ Research Institutes Faculty/Staff Member and Research Scholars/Students	Rs. 1500/-
Members from Industries	Rs. 3000/-

Registration fee includes study/lecture materials, refreshment and lunch for 5 days during the course.

Last date of registration: January 31, 2018

ORGANIZING COMMITTEE:

Chairman
Prof. G. Sanyal, HOD, Dept. of CSE

Joint Coordinators:
Dr. Debashis Nandi, Dept. of CSE
Dr. Subhrabrata Choudhury, Dept. of CSE
Dr. Mrinal Kanti Mandal, Dept. of Physics

Members:
Dr. Baisakhi Chakraborty, Dept. of CSE
Dr. Sajal Mukhopadhyay, Dept. of CSE
Dr. Debashis Mitra, Dept. of CSE
Mr. Jaydeep Howlader, Dept. of CSE
Mr. Animesh Dutta, Dept. of CSE
Mrs. Dipanwita Das, Dept. of CSE

NATIONAL INSTITUTE OF TECHNOLOGY, DURGAPUR
Department of Computer Science and Engineering
M.G. Avenue, Durgapur – 723109, West Bengal

REGISTRATION FORM

TEQIP-III Sponsored One Week Short Term Course on
MACHINE LEARNING IN COMPUTER VISION AND PATTERN RECOGNITION (MLCVPR-2018)

February 05 - 09, 2018

1. Name: ---

2. Designation & Affiliation: --

3. Male/Female:---

4. Mailing Address:--

5. Telephone No.: _____ & _____ (M)

6. E-mail ID : --

7. Highest Academic Qualification:---

8. Working Experience (In nos. of Years): --

9. Accommodation required* (Y/N):--

10. Registration fees: Transection ID. _____ Date _____ Amount _____

    A/C Name: **NITD IT PHY**   A/C No. **33154858334**   IFS Code: **SBIN0002108**

11. Vegetarian / Non-Vegetarian: ---

Place: _____   *Signature of the Applicant*
Date: _____

Signature and Seal of the Head of the Department/Institute

N.B.: Please ensure that all the fields (1 to 11) are properly filled-in and then duly signed. Photocopy of this form may also be used for registration. Please send the completed application form to the Course Coordinator by E-mail.