One Week Faculty Development Program
under TEQIP-II
on
Nature Inspired Computations
in Engineering

May 18-22, 2015

Organized by
Department of Electrical Engineering
Dr. Babasaheb Ambedkar Technological University Lonere,
Dist. Raigad, Pin 402103, Maharashtra
www.dbatuonline.com

Course Coordinators

<table>
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<tr>
<th>Dr. K. Vadirajacharya</th>
<th>Dr. P.K. Katti</th>
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<td>Coordinator</td>
<td>Co-coordinator</td>
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Venue: Anandvan (Guest House) DBATU Lonere
**Introduction**

Natural computing is a terminology introduced to encompass three classes of methods: (1) those that take inspiration from nature for the development of novel problem-solving techniques; (2) those that are based on the use of computers to synthesize natural phenomena; and (3) those that employ natural materials (e.g., molecules) to compute. The main fields of research that compose these three branches are the artificial neural networks, evolutionary algorithms, swarm intelligence, artificial immune systems, fractal geometry, artificial life, DNA computing, and quantum computing, among others.

Scientific trend that came onto the scene by the mid 1940s, but which received a great deal of attention over the past two or three decades, is the merging of ideas from nature and computing, words that used to mean antagonist things. Researchers are currently using ideas from nature to develop novel problem-solving techniques; computers have been used to synthesize natural phenomena; and novel natural materials (in addition to silicon) have been used to perform computation.

This one week training programme is intended to provide in depth light on principles of Nature Inspired Computational Techniques with an emphasis on engineering applications. Faculty working in engineering and polytechnic institutions from any engineering field can avail this training benefit.

**Program Goals**

The main objectives of the training programme are:

- To understand the basic principles of different nature inspired computational techniques
- To take overview of different nature inspired computational techniques
- To design and develop algorithms of different NICE programs,
- To have hands on experience on use of different algorithms.
- To identify and explore possibilities of research applications.

**About the University**

Established by Government of Maharashtra vide Act XXII of 1989, Dr. Babasaheb Ambedkar Technological University is a unitary (non-affiliating) University with full funding from the State Government. Situated in the vicinity of the historic Raigad fort and surrounded by the hills of Sahyadri range, the 470 acre terrain of the University campus has all the natural beauty of Konkan. At present, the University conducts 8 B.Tech. and 6 B.Tech. programs in various disciplines of Engineering & Technology. The University also conducts PhD programs in various disciplines of Engineering & Sciences. Although relatively young, the University is making its mark in the field of research and technological services through its dedicated faculty and disciplined students. Located on Mumbai-Goa National Highway No. 17, the university is 150 km south of Mumbai, 20 km north of Mahad and is 125 km away from Pune. It is also well connected by Konkan Railway.

**Resource Faculty**

Experts from IIT Mumbai, Experts from COE Pune, Experts from VJTI Mumbai,
In house faculty from Electrical, Electronics and Computer engineering department.

**Registration fee**

Rs.1000 for academicians, Rs 2000 for industrial participants, Rs 500 for Research Scholar and PG/UG students. The fee includes course material, breakfast, working lunch and snacks. Accommodation on twin-sharing basis in university guest-house/hostel will be made available on request on chargeable basis to the registered participants. Completed registration form along with a demand draft for fee drawn in favour of “Registrar, Dr. Babasaheb Ambedkar Technological University, Lonere (A/c)” payable at SBI Mangaon (Code - 0276) must reach the Coordinator by May 4, 2015. Maximum numbers of seats are 40. Intimation of selection by May 8, 2015.
Registration Form
One Week Faculty Development Programme (Under TEQIP)
on
Nature Inspired Computational techniques in Engineering
May 18-22, 2015

Name (Block Letters):

Gender (M / F):

Name of the Organization:

Complete Mailing Address:

Telephone : ______________________(O)

____________________________(R)

Mobile: ______________________

Email : ______________________

Payment:

D.D. No.: __________________________Dt. __________________________ Rs.

[Demand draft should be drawn in favor of "Registrar, Dr. Babasaheb Ambedkar Technological University, Lonere (A/c)"].

Date: __________________________Signature of Applicant

Sponsoring Authority
(Name and Designation)

Date: __________________________Signature and Seal

Address for Correspondence
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Coordinator
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