# A One-Week Workshop



# Recent trends on Optimization Techniques in Science and Engineering (ROTS-2017) (Under TEQIP - II)

### 15-20 March 2017

Organized by: Department of Mathematics, NIT Silchar, Assam

Last date of receipt of Application: 10.03.2017 (5PM)

Max seats: 50



Prof. K. Chaudhuri Jadavpur University

Prof. D. P. Achariya

Please don't apply if not are prepared to attend you most of it. Better to somebody else, who may be allow benefitted.

rof. J. C. Bansal SAU. Delhi

VIT University

Prof. S. K. Udgata University of Hyd.

Prof. A. K. Ojha IIT Bhubaneswar



# **EXPERTS**

Mr. K. Nag ISI Kolkata

Prof. A. Kishor Amity Uni., Kol

Prof. S. K. Pattanayak Prof. K. N. Das NIT Silchar NIT Silchar







Registration (by 10.03.2017, 5pm)

- Hands on training
  - MATLAB toolbox and jMetal for optimization.
  - Tutorial on some Statistical tests.
  - o Applications of jMetal in Optimization.
- Supply of study materials on different algorithms of evolutionary optimization techniques.
- Excellent expert lecture series.
- Maximum intake: 50
- Registration includes registration kit, Breakfast and Lunch.
- Dinner for outstation participants only
- Selected participants to bring their own laptops for training during workshop.

- M. Sc., M. Tech., Ph. D. students and Faculty members and persons from industry can apply.
- For internal participants: No registration fee. Duly filled registration form, forwarded by HOD should be submitted in the office of Department of Mathematics, NIT Silchar.
- For outstation participants: Registration fee is Rs. 500 (DD drawn in favour of Director, NIT Silchar; payable at SBI). Duly filled registration form, forwarded by HOD should be mailed to kedar.iitr@gmail.com along with scanned DD by the deadline. However, originals should be submitted before commencement of the workshop.

#### REGISTARTION DETAILS

External Participants: Rs. 500/-

Payment via DD in favour of **Director NIT Silchar**, Payable at *State Bank of India*, *NIT Silchar* branch.

Brochure and registration form can also be downloaded from the institute website: http://www.nits.ac.in/workshops/

**Registration process:** Advance scan copy of DD and Registration Form is to be sent to **kedar.iitr@gmail.com** on or before 10<sup>th</sup> March 2017.

The hard copy of original registration from and D.D. has to be submitted before the commencement of workshop at the registration desk.

#### **ABOUT THE INSTITUTE**

National Institute of Technology (NIT) Silchar, an Institute of National Importance under the NIT Act was established in 1967 as Regional Engineering College (REC) Silchar in Assam. In year 2002, it was upgraded to the status of an NIT from REC. NIT Silchar is situated on the banks of river Barak and on a sprawling campus spread over 600 acres of land on the outskirts of Silchar. The landscape of NIT Silchar campus is beautiful with natural lakes and hillocks, surrounded by tea gardens. The climate of Silchar during March is very pleasant with normal temperature around 27-30°C. NIT Silchar is a fully residential institution with nine hostels for boys and two hostels for girls. It has six engineering branches and five non-engineering branches. It conducts various programmes, including organizing the workshops, seminars, conferences, invited talks etc. in collaboration with different academic departments, institutes of repute and with various multinational and national industries.

#### **ELIGIBILITY**

This program is open to industrial personnel, faculty members and research scholars of technical institutions, engineering colleges, polytechnics, universities and other recognized academic institutions.

#### **ACCOMMODATION AND TRAVEL**

All the out station participants will be provided accommodation in the Institute on payment basis subject to available. No TA/DA will be paid to the participants.

#### **HOW TO REACH NIT SILCHAR**

The Silchar city is well connected by air, rail and road. Silchar is situated at a road distance of 334 km from Guwahati. NIT campus is about just 10 km away from Silchar railway station and 35 km from Silchar Airport. Details can be found in <a href="http://www.nits.ac.in/misc\_docs/Reaching\_NIT\_Silchar.pdf">http://www.nits.ac.in/misc\_docs/Reaching\_NIT\_Silchar.pdf</a>

#### ADDRESS FOR COMMUNICATION

Dr.KedarNath Das, Coordinator, Assistant Professor, Department of Mathematics, NIT Silchar, Assam, India Mobile: +91 9435176446

Email: kedar.iitr@gmail.com



One-Week Workshop

on

Recent trends on Optimization
Techniques in Science and Engineering
(ROTS-2017)

(Under TEQIP - II)

15-20 March 2017

National Institute of Technology, Silchar (Assam)



Organized by:
DEPARTMENT OF MATHEMATICS



NIT SILCHAR, SILCHAR ASSAM-788010, INDIA

Coordinator:
Dr.KedarNath Das
Department of Mathematics, NIT Silchar

#### ABOUT THE WORKSHOP

'Optimization' plays an important role in all branches of Management, Science and Engineering. Researchers struggle to find a way in solving optimization models arise in their research field. Identifying a suitable technique (either the traditional or the heuristic one), it becomes indeed a challenge for the researchers. This proposed workshop is expected to provide a robust platform to boost the research up towards innovating and designing new object oriented techniques. Some handson trainings of applying computational optimization techniques will be expected as a part of this program. Extensive interactions of research problems with the eminent subject experts from reputed premier institution over the country will add extra flavor to the quality of the workshop.

#### **OBJECTIVES**

- Experts to provide a platform to share their relevant knowledge and recent development concepts with the participants in the related research field of Optimization.
- To carryout hands-on training on software in Optimization.
- To form a bridge to minimize the gap between theory and practical knowledge.
- To create encouragement in future researchers in applying various optimization techniques.

#### CONTENTS

- Concepts on Optimization Techniques
- Mathematical Modelling of Optimization Problems
- Linear Optimization Techniques (Theories)
- Non-Linear Optimization Techniques (Theories)
- Recent Bio-inspired Optimization Techniques
- Networking Optimization
- Various applications of Optimization Techniques in Science and Engineering
- Hands-on training on Optimization software through MATLAB and jMetal

#### EXTERNAL SPEAKERS

Prof. K. Chaudhuri (Jadavpur University, Kolkata)

Prof. S. K. Udgata (University of Hyderabad)

Prof.A. K.Ojha (IIT Bhubaneswar)

Prof. J. C. Bansal (SAU, Delhi)

Prof. D. P. Acharya (VIT Vellore)

Prof. Amar Kishor (Amity University, Kolkata)

Mr. Kaustuv Nag (ISI Kolkata)

#### ORGANIZING COMMITTEE

Patron: Prof. Rajat Gupta, Director, NIT Silchar

Chairman: Dr.Santanu Roy, HOD, Mathematics

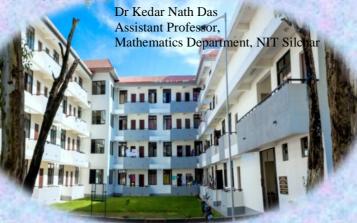
Members: Sri. Bijan Nath

Dr Pijus Kanti De Dr Mausumi Sen Dr Ganti Ramesh Dr Md. Maqbul Dr Juthika Mahanta Dr B H S Raju

Dr Praveen Kumar Gupta

Dr Subrata Bera Dr Pankaj Biswas

Coordinator:



A One-WeekWorkshop

on

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15-20 March 2017

Organized by:

Department of Mathematics, NIT Silchar

#### REGISTRATION FORM

- 1. Name (Capital):
- 2. Designation/Class:
- 3. Institution/Organisation:
- 4. Address for communication:
- 5. E mail:
- 6. Phone/Mobile No:
- 7. Highest educational qualification:
- 8. Paid accommodation required\* (Tick): Yes/No (\*in NIT campus, subject to availability)
- 9. Any other information:
- 10. Details of Registration Fee:
- 11. Recommendation of HOD:

12. D. D. No.:

Date:

Bank:

Place:

Date:

Signature of the applicant





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Full Name (in Capital):				August			
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4. Address for communication:							
5. E mail:							
6. Phone/Mobile No:							
7. Highest educational qualification:							
<ol> <li>Accommodation required* (Tion         (*in NIT campus, subject to availability         For outstation participants only)</li> </ol>							
9. Any other related information:	:						
10. Details of Registration Fee: [ (for outstation participants only)	DD No.:	Date:	Bank:				
Place:							
Date:			Signatu	ıre of the applicant			
RECOMMENDATION/FORWARDING BY COMPETENT AUTHORITY							
Forwarded and Recommended.  (Signature of the Competent Authority with seal)							
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#### **NOTE:**

- Selected participants are required to bring their **own laptop** during the workshop
- Please don't apply, if you are not prepared to attend most of this program. In such case, allow somebody else to be benefitted at your place.