

# INFORMATION BROCHURE

## **TEQIP-II Sponsored Short Term Training Program**

On

## **Optimization Methods in Engineering Design**

**29-30 September, 2016**

**Course Coordinator  
Dr. Saroj Kumar Patel**

### **Call for Participation**



*Organized by*

**Dept. of Mechanical Engineering  
National Institute of Technology  
(An Institution of National Importance)  
Rourkela – 769008, Odisha**

### **About the Training Program:**

The proposed training program presents traditional and advanced methods of optimization having applications in engineering sciences. It tries to close the gap between optimization theory and the practice of engineering.

### **Topics to be Covered**

- Traditional methods: single objective optimization, single & multi-variable, constrained and unconstrained
- Non-traditional methods: Genetic Algorithm, Simulated Annealing, Teaching-learning-based optimization algorithm, Jaya algorithm, Ant Colony Optimization, Particle Swarm Optimization etc.
- Multi-attribute decision making methods AHP, TOPSIS, PROMETHEE, MOORA, SAW, WPM etc.
- Multi-objective optimization
- Use of MATLAB software in optimization

### **About the Institute**

The institute was initially established as Regional Engineering College in 1961 and was upgraded as a National Institute of Technology in 2002. It is an institute of national importance and is fully funded by the Government of India. It conducts BTech, BArch, MTech, Dual degree (BTech & MTech), MA, MBA, M.Sc., Integrated MSc and Ph.D. & MTech (Research) courses in all disciplines of engineering, sciences, humanities & social sciences, and management to around more than 5500 students.

### **About the Department**

The Department of Mechanical Engineering came into existence in 1961. At present the department is conducting a BTech program in Mechanical Engineering, five MTech programs (Mechanical Design & Analysis, Production Engineering, Thermal Engineering, Cryogenics and Vacuum Technology, “Plastics, Composites and Timber Engineering”) and a research program leading to Ph.D. degree.

## **REGISTRATION FORM**

TEQIP-II Sponsored

Short Term Training Program

on

**Optimization Methods in Engineering Design**

(29-30 Septemeber, 2016)

### **How to reach NIT Rourkela**

Rourkela is one of the major steel townships of SAIL. It is also famous for statue of Hanuman. It is located on Howrah–Nagpur–Mumbai main line of South Eastern Railway. The nearest airport is Ranchi which takes 3.5 h to reach by rail. NIT campus is about 8 km and 3 km from Rourkela railway station and Sector-2 bus stand respectively.

### **Eligibility for Participation**

The training program is open to **engineering college/university faculty and technical staff members**. This is not meant for students or industry participants. As the training program is of interdisciplinary nature, faculty members of any discipline like Civil, Mechanical, Electrical, Electronics, Computer, Chemical engineering etc. can attend the program. Faculty members with Science and Mathematics background can also attend.

### **Registration Fee: NIL**

Free accommodation can be arranged in guest house/hostel subject to availability. But, no TA/DA will be paid.

### **Last Dates**

- Receipt of Registration Form: **21-09-2016**
- Intimation of selection: **22-09-2016**

The candidate can send scanned copy of duly signed registration form by e-mail for early selection.

### **Correspondence Address**

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Full Name				
Designation				
Department & Institution with full address				
Academic qualification				
Years of Experience	Teaching		Industry	
Gender & Age				
Mobile Phone				
Whatsapp No.				
Land Phone	Off			
	Res			
Email				
Facebook ID				
Tick the type of accommodation desired	Guest House			
	Hostel			
	Own arrangement			

Signature of the applicant:

Signature of HOD/Principal with seal: