## **Short Term Course Objectives**

today's highly competitive \ marketplace, it's imperative for businesses to innovate new ways to optimize energy use and maintenance in industries. Technology can help to make utilization of automation, condition monitoring which will enable the business to operate more efficiently, and help to reduce the operational costs. Additionally, these optimization tools can be utilized in many industrial applications to develop prediction tools by which both optimized cost and quality can be achieved.

### **Course Content**

- Condition Monitoring and Automation using AI Techniques.
- ❖ Introduction to energy System.
- Prediction tool development for energy system.
- Optimization techniques to improve the performance of energy system.
- Concept of Industrial Automation.
- Application of sensors and actuators in industrial automation.
- Condition monitoring and maintenance in industrial environment.

# **Programme Co-ordiantors**

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### **About NITR**

National Institute of Technology Rourkela is an institute of national importance created under the act of parliament. Times World Rankings has figured NIT Rourkela in the list of 601-800 universities in the world in 2016-17. NIT Rourkela is the only NIT to appear in the top 980 universities in the world. BRICS 2016 has figured NIT Rourkela in the list of 111-120 top universities in Brazil, Russia, India, China and South Africa in 2016-17. NIT Rourkela provides quality education in a diverse and multi-cultural environment. The mission of the institute is to become an internationally acclaimed institution of higher learning that will serve as a source of knowledge and expertise for the society and be a preferred destination for undergraduate and graduate studies.

# **About Department**

The Department of Mechanical Engineering is one of the oldest Department of NIT Rourkela. The course curriculum for the programme has been meticulously designed with inputs from several other institutes of higher learning and reputed industries to cater to the need of the present day need of the industries. The Department has various laboratories with state-of-the-art technology.

### **How To Reach Rourkela**

Rourkela is on the Howrah (Kolkata)—Mumbai main line of South Eastern railway. The railway station and intrastate bus stand are 6kms and 2kms from NIT Rourkela campus respectively. The airports near to Rourkela are Ranchi, Bhubaneswar and Kolkata. Rourkela is well connected to these cities by rail and train frequency is very good.

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