

**Declaration+**

The information is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the course and shall attend the course completely.

Place

Signature of the applicant

Date

**Registration Fees Details**

Participation from Industry Rs 5000/-

**Last date of confirmation of participation**

21<sup>st</sup> May 2014

**About the Department**

Mechanical Engg Department is one of the oldest and largest Department in the Institute. It was recognized as the first Department is the QIP Center. The Department is focusing on research and development consultancy work in addition to teaches UG and PG levels. A large number of Ph D and M.Tech (Res) students are enrolled for research work in different emerging areas.

**MISSION AND VISION OF THE DEPARTMENT**

To nurture its students (B. Tech, M. tech & PhD) with fundamentals of subject and an up-to-date technical skill to meet regional as well as national priorities in higher education for industrial application. The program also strives to enhance learning skill with research capability, quality research and scholarly activities to be integrated with teaching.

To provide the society and industry with mechanical engineers having superior technical capability and ethical responsibility to become the best mechanical engineering department in the country for the research and development in the emerging areas.

**About the institute**

National Institute of technology, Rourkela is one of the premier center for teaching, research and industrial consultancy. The institute has 17 departments. The campus is situated in the green environment.

Rourkela is located in the north-western tip of the Indian state Odisha at the heart of a rich mineral belt. It is surrounded by a rose of hills and encircled by rivers. One of the largest steel plants of the steel authority of India limited is situated here. The name

**Accommodation and Travel**

The participants should make their own arrangement for boarding and lodging. Working lunch will be provided for all participants.

**Address for communication**

Dr. K P Maity

Co-ordinator, short term course

DEPARTMENT OF MECHANICAL  
ENGINEERING NATIONAL INSTITUTE OF  
TECHNOLOGY ROURKELA - 769008

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***A Two day short Term Course  
for industry personnel***

on

**DEFORMATION CRITERIA AND  
MODELLING FOR ROLLING  
PROCESS (DCMRP)**

30<sup>th</sup>-31<sup>st</sup> May 2014



Co-ordinator  
Prof. K. P. Maity  
Organised by

**MECHANICAL ENGINEERING DEPARTMENT  
NATIONAL INSTITUTE OF TECHNOLOGY**

**Rourkela -769008**

## INTRODUCTION

Rolling is a bulk metal deformation process widely used in different industries. It is highly essential to control the process parameter in order to improve the quality of rolled product. The base know-how of metal deformation process is very important for every practice engineer in order to develop sound knowledge of the control process. Modeling of the rolling process will enhance the knowledge of the process.

## OBJECTIVES OF THE COURSE

- ✓ To acquaint the practice Engineers of the Industry the basic deformation criteria for rolling.
- ✓ To impart the techniques high level theory for modeling of the rolling process.

## COURSE CONTENT

1. Basic theory of stress Equilibrium Approach
2. Basic theory of stress Equilibrium Approach applied to rolling process
3. Basic theory of Upperbound Theorem
4. Three dimensional upperbound method based on dual stream method
5. Modeling of rolling process using upperbound method

## Eligibility, Selection & Dates

The course is open to all the practice engineers from industry, DD should be drawn in favour of "CONTINUING EDUCATION, NIT ROURKELA" payable at SBI, NIT Rourkela. Broucher and registration form can be downloaded from Institute website <http://www.nitrkl.ac.in>

## REGISTRATION FORM

1. NAME.....
2. DESIGNATION.....
3. ORGANIZATION.....
4. ADRESS FOR COMMUNICATION  
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.....
5. EXPERIENCE IN RESEARCH/INDUSTRY (YEARS)  
.....
6. ACCOMORDATION REQUIRED : YES/NO.....
7. DD PARTICULARS  
Amount Rs. ....  
DD No. ....

ANY OTHER INFORMATION