












## Lecture Schedule: TEQIP STP Advanced Gear Engineering (November 21-22, 2015)

Department of Mechanical Engineering, Indian Institute of Technology Guwahati INDIA

|                        | 9-10 AM   | 10-11 AM  | 11-12 AM   | 12-1 PM   | 2-3 PM  | 3-4 PM  | 4-5 PM   |
|------------------------|---|---|--|---|---|---|--|
| 21.11.2015<br>Saturday | History and Manufacturing of Gears<br><b>Prof US Dixit</b>  | Pedagogy<br><b>Prof Arun Chattopadhyaya</b>         | High Quality finishing of Gears by Electrochemical Honing Process<br><b>Prof. Neelesh Kumar Jain</b> | Finite Element Analysis in Gear Design<br><b>Dr Rama Thirumurugan</b>             | Online Condition Monitoring of High Speed Gears using Vibration and Oil Analyses<br><b>Prof Harish Hirani</b> | Modelling and Experimental Validation of Gear Misalignment<br><b>Prof Harish Hirani</b> | Fatigue Failures Including Gears<br><b>Prof S K Kakoty</b>           |
| 22.11.2015<br>Sunday   | Near Net-shape Manufacturing of High Quality Miniature Gears by WEDM Process<br><b>Prof. Neelesh Kumar Jain</b> | Polymer Composite Gears<br><b>Dr S Senthilvelan</b> | Heat Treatment Methods for Gears<br><b>Prof PS Robi</b>  | Transmission Characteristics and Bi-directional Loading<br><b>Mr M Kodeeswran</b> | Design of High Contact Ratio Gears<br><b>Dr Rama Thirumurugan</b>   | Fault Diagnosis Of Gearbox Using Machine Learning Techniques<br><b>Dr Saimurugan</b>    | Asymmetric Spur Gears and Air cooling<br><b>Mr A Johnney Mertens</b> |

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| <b>Prof U S Dixit IIT Guwahati</b><br>Design and Manufacturing : FEM, Neural Network and Fuzzy Set Application; Mechatronics | <b>Prof Arun Chattopadhyaya, IIT Guwahati</b><br>Thin Films, Membrane Sciences, and Nano Science & Technologies.                               | <b>Prof. Neelesh Kumar Jain IIT Indore</b><br>Advanced Machining and Finishing Processes. Soft Computing Techniques | <b>Dr Rama Thirumurugan, MCET</b><br>Gear Design, Composite Materials, Finite Element Analysis, Vibration analysis  | <b>Prof Harish Hiranai IIT Delhi</b><br>Magnetic Bearing, Journal Bearing ,MR Fluid ,Mechanical Seals ,Online Condition Monitoring of Lubricated Gears | <b>Prof S K Kakoty, IIT Guwahati</b><br>Tribology, Duct Acoustics, Mechanical System Design, Rural Technology |
|   |   |                                |                                |   |   |
| <b>Dr S Senthilvelan IIT Guwahati</b><br>Composites, Fatigue, Wear and Failure Analysis                                      | <b>Prof P S Robi, IIT Guwahati</b><br>Coating, Fracture Mechanics, Materials Processing, Metal Matrix composite, Metal Casting, P/M Processing | <b>Mr M Kodeeswran, VSSC</b><br>PhD Scholar: Non metallic gears   | <b>Dr M Saimurugan, Amrita University</b><br>Vibration Analysis, Machine Learning and Machine Condition Monitoring. | <b>Mr Johnney Mertnes, IITG</b><br>PhD Scholar: Asymmetric and CNT based composite gears   |   |

Venue: Conference Hall Complex, Hall No. 3