

Fundamentals and Advanced Concepts of Lean Manufacturing and Six Sigma

Overview

Modern manufacturing scenario witnesses tremendous technological advancements and must cope with competitiveness. Lean manufacturing enables streamlined processes by means of systematic analysis of wastes, waste elimination and value enhancement. Six Sigma is a defect reduction strategy as a result of excessive variation in processes and utilises a powerful problem solving methodology called DMAIC (Define-Measure-Analyse-Improve-Control). Integrated Lean Six Sigma strategy facilitates the combined benefits of waste elimination and defect reduction. The modern manufacturing systems necessitate the adoption of Lean Manufacturing and Six Sigma concepts for ensuring competitive advantage. Numerous challenges are associated with the development of theoretical framework for Lean Manufacturing and Six Sigma and ensuring its practical compatibility. Rigorous research is currently being done on developing Lean Manufacturing and Six Sigma frameworks, decision making tools, performance measurement and so on. In this context, this course will focus on theoretical and practical perspectives of Lean Manufacturing and Six Sigma for ensuring competitive advantage. The implications and inferences for service industries as well as Public Sector organisations also will be deliberated. Tutorials and syndicate exercises in groups will be conducted on all days to participants. The research avenues on all topics will be highlighted during the end of the course. The course curriculum is designed based on requirements of both industry and academia.

Objectives

- i. Exposing participants to the fundamentals of Lean Six Sigma
- ii. Training the participants on tools, techniques and methodologies of Lean Six Sigma
- iii. Providing case studies, syndicate exercises in groups and hands on experience on Lean Six Sigma
- iv. Enhancing competence of participants to apply Lean Six Sigma to real world problems

Modules	Lean Six Sigma: July 25-30, 2016 Number of participants for the course will be limited to 50.
You Should Attend If...	<ul style="list-style-type: none"> ▪ Undergraduate, Postgraduate, PhD students and Faculty in Industrial/ /Production/Mechanical Engineering, and allied engineering disciplines and business management ▪ Middle level and senior managers in manufacturing and service organizations requiring an in-depth understanding of lean and six sigma practices and implementation principles for organizational competitiveness ▪ Executives and administrative officials from Government/Public sectors and research organizations
Fees	<p>The participation fees (Excluding Lodging & Boarding) for taking the course is as follows:</p> <p>Student Participants without/with Grading : Rs. 500/Rs. 1,000 Faculty (Internal & External) & Scientists : Rs. 3,000 Persons working in Industry / Consultancy firms : Rs. 6,000 Student Participants from Abroad : USD 50 Other Participants from Abroad :USD 100</p> <p>The above fee include all instructional materials, computer use for tutorials and assignments, laboratory equipment usage charges, 24 hr free internet facility. The participants will be provided with accommodation on payment basis.</p>
How to Register	<p>Stage 1:Web (Portal) Registration: Visit GIAN Website at the link: http://www.gian.iitkgp.ac.in/GREGN/index and create login User ID and Password. Fill up blank registration form and do web registration by paying Rs. 500/- online through Net Banking/ Debit/ Credit card. This provides the user with life time registration to enroll in any no. of GIAN courses offered.</p> <p>Stage 2: Course Registration (Through GIAN Portal): Log in to the GIAN portal with the user ID and Password created. Click on "Course Registration" option given at the top of the registration form. Select the Course titled "Fundamentals and Advanced Concepts of Lean Manufacturing and Six Sigma" from the list and click on "Save" option. Confirm your registration by Clicking on "Confirm Course". Only Selected candidates will be intimated through E-mail by Course Co-ordinator. They have to remit the necessary course fee in the form of DD drawn in favour of 'The Director, NIT, Tiruchirappalli-15' payable at SBI-NIT-Tiruchirappalli.</p>

The Faculty



Prof. Jiju Antony is a Professor of Quality Management in School of Management & Languages, Dept. of Business Management, Heriot-Watt University, United Kingdom. Prof Jiju Antony is recognized worldwide as a leader in Six Sigma methodology for achieving and sustaining process excellence. He has authored over 300 journal and conference papers and 6 text books. He has generated over £10 million from various research projects funded by European Commission as well as local government funding bodies in the UK. He has published over 90 papers on Six Sigma topic and is considered to be one of the highest in the world for the number of Six Sigma related papers. Professor Antony has trained up over 1250 people over the past 10 years on Lean and Six Sigma topics from over 175 companies in the UK and abroad representing 23 countries. He was the past Editor of the International Journal of Six Sigma and Competitive Advantage and is currently serving as the Editor of the International Journal of Lean Six Sigma since 2010, Associate Editor of the TQM and Business Excellence Journal (Europe's top quality management journal) since September 2015 and Associate Editor of Quality Approaches in Higher Education published by the American Society for Quality (ASQ). He is on the Editorial Board of 8 International Journals including the Quality and Reliability Engineering International, International Journal of Quality and Reliability Management, TQM Journal, International Journal of Productivity and Performance Management, Measuring Business Excellence, Managing Service Quality. He has been appointed as strategic advisor for the Chartered Quality Institute, UK and Police Scotland since 2014. He has been working on a number of consultancy projects with world class organisations including Rolls-Royce, Siemens, Philips, Bosch, General Electric, Parker Pen, Proctor and Gamble, Thales Optronics, Scottish Power, a number of City Councils, Police Scotland, and a number of Small and Medium Sized Enterprises.



Dr. S. Vinodh is an assistant professor in the Production Engineering Department of the National Institute of Technology, Tiruchirappalli, Tamil Nadu. He was awarded a National Doctoral Fellowship for pursuing doctoral research by the All India Council for Technical Education, New Delhi, India, during 2006–2008. He was awarded a Highly Commended Paper Award and Outstanding Paper Award by Emerald Publishers, United Kingdom, in 2009 and 2011 respectively. He was the recipient of the 2010 Innovative Student Project Award from the Indian National Academy of Engineering, New Delhi, India. He has published/presented over 100 papers at various international journals/conferences. He is serving on the editorial advisory board of the International Journal of Lean Six Sigma and Journal of Engineering, Design and Technology. His research interests include agile manufacturing, Lean manufacturing, sustainable manufacturing, Lean Six Sigma, additive manufacturing, product development and multi-criteria decision making.

Course Co-ordinator

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