

### Annual Report for GIAN courses

S. No.	GIAN Course ID	GIAN Course Title	International Faculty	Host Faculty	Confirmed Dates	No. of Weeks
1	151003L04	Modelling Engineering Turbulent Flows	Prof. Danesh Tafti [United States of America]	Dr.S. Vengadesan (AM)	19-25 December, 2015	1
2	151003L01	Insect and Bird Aerodynamics- Theory and Methods	Prof. Danesh Tafti [United States of America]	Dr.S. Vengadesan (AM)	24-30 December, 2015	1
3	151003D04	Integrated Circuits for High-Speed Serial Links	Dr. Pavan Kumar Hanumolu [United States of America]	Dr. Shanthi Pavan (EE) Dr. Nagendra Krishnapura (EE)	25-29 December, 2015	1
4	151003D01	Millimeter-wave Integrated Circuits: 60GHz and Beyond	Dr. Harish Krishnaswamy [United States of America]	Dr. Shanthi Pavan (EE)	1-17 January, 2016	2
5	151003D03	Optical Coherent Communication	Prof. Liam Barry [Ireland]	Dr. Deepa Venkitesh (EE) Dr. David Koilpillai (EE)	4-15 January, 2016	2
6	151003H01	3 Dimensional Cell based therapeutic approach for tissue repair and	Dr. Noam Levoat [Israel]	Dr. Rama S Verma (BT)	26th January, 2016 to 5th February, 2016	2
7	151003D02	Advanced Topics in Instrumentation	Prof. Subhas Mukhopadhyay [New Zealand]	Dr. Bobby George (EE) Dr. Jagadeesh Kumar (EE)	1-12 February, 2016	2

8	151003L05	Fire Dynamics and Fire Protection	Prof. José L. Torero [Australia]	Dr.Amit Kumar (AE) Dr.V Raghavan (ME) Dr.S R Chakravarthy (AE) Dr.T M Muruganandam (AE)	6-12 February, 2016	1
9	151003A02	Seismic Analysis and Design of Masonry Structures	Prof. Guido Magenes [Italy]	Dr.Arun Menon (CE)	8-20 February, 2016	2
10	151003M01	Introduction to Marine Renewable Energy	Prof. A. Robin Wallace [United Kingdom]	Dr.S.A.Sannasiraj (OE) Dr.V Sundar (OE)	13-18 February 2016	1
11	151003A03	Computations for Historical Masonry	Prof. Paulo Lourenco [Portugal]	Dr.B.N.Rao (CE) Dr.A.Meher Prasad (CE)	1-11 March, 2016	2
12	151003B08	Tailored and Tunable Properties of Nanomaterials	Prof. Dr.-Ing. Horst Hahn [Germany]	Dr.S.S. Bhattacharya (MME) Dr.B.S. Murty (MME)	3-17 March, 2016	2
13	151003M03	Extreme Waves in Ocean Engineering	Prof. Felice Arena, Italy	Dr.Sannasi Raj S.A. (OE)	21st March to 1st April, 2016	2

14	151003L12	Megaproject Leadership and Governance: Capabilities for New infrastructure development	Dr. Nuno Gil, The University of Manchester, UK	Dr. Ashwin Mahalingam (CE)	1-7 April, 2016	1
15	151003A04	Seismic Risk Assessment at Urban Scale	Prof. Dina D'Ayala, The University of London, UK	Dr.Arun Menon (CE)	18-22 April, 2016	1
16	151003L06	Turbulence Models for Engineering Application	Dr. Paul Durbin, Iowa State University, USA	Dr.S. Vengadesan (AM)	16-22 May, 2016	1
17	151003L09	Automotive Noise and Vibration Control: Contemporary Engineering Practice and Research Issues	Prof. Rajendra Singh [United States of America]	Dr.P.Chandramouli (ME)	16-27 May, 2016	2
18	151003L08	Multiscale methods for mechanics	Prof. BORDAS Stéphane Pierre Alain [United Kingdom]	Dr.Sundararajan Natarajan (ME)	23rd May - 3rd June, 2016	2
19	151003L03	Vehicle Dynamics and Control	Prof. Rajesh Rajamani [United States of America]	Dr.C.S.Shankar Ram (ED)	30th May - 3rd June, 2016	1
20	151003B05	Advanced Steels for the Automotive Industry and Other Sectors	Prof. Peter D Hodgson [Australia]	Dr.B S Murty (MME) Dr.V Subramanya Sarma (MME)	1-15 June, 2016	2
21	151003D06	Mobile and Cloud Security	Prof. Byrav Ramamurthy [United States of America]	Dr.Krishna M. Sivalingam (CSE)	6-17 June, 2016	2

22	151003B06	Catalysis in Green Chemistry and Environmental Applications	Prof. K. Seshan [Netherlands (Holland, Europe)]	Dr.P Selvam (CY)	1-10 June, 2016	2
23	151003G05	Application of System Approach for Precision Grinding Processes	Dr. K. (Subbu) Subramanian [United States of America]	Dr.N. Ramesh Babu (ME)	6-10 June, 2016	1
24	161003L15	Mechanics and Modeling of Soft Materials: From Natural Rubber to Biomaterials	Prof.Arun Srinivasa, Texas A&M University, Texas, USA	Dr.M.S.Sivakumar Dr.Srikanth Vedantam (ED)	13-19 June, 2016	1
25	161003J02	Increasing Efficiency and Reducing Cost Within a Supply Chain (U.S. and Indian Perspectives)	Dr.Zach G. Zacharia, Lehigh University, Bethlehem, PA, USA	Dr.Usha Mohan (S)	13-17 June, 2016	1
26	151003K04	High-Performance Parallel Computing	Prof. Ponnuswamy Sadayappan [United States of America]	Dr.Rupesh Nasre (CSE)	20th June, 2016 to 1st July, 2016	2
27	151003B04	Fabrication, Testing and System Integration of Solid Oxide Fuel Cells	Dr. Aman Dhir [United Kingdom]	Dr.Sreenivas Jayanti (CH) Dr.Ranjit Bauri (MME)	27th June, 2016 to 2nd July, 2016	1
28	151003J02	SUPPLY CHAIN ENGINEERING AND MULTI-CRITERIA DECISION MAKING	Prof. A. Ravi Ravindran [United States of America]	Dr.C. Rajendran (MS)	27th June to 8th July, 2016	2

29	161003B02	Metabolic Engineering for Bioprocesses	Prof. Mark A. Eiteman, University of Georgia, USA	Dr. T.S. Chandra (BT) chandra@iitm.ac.in Dr. S. Ramalingam Anna University ramabioprocess@gmail.com	2-15 July, 2016	2
30	151003B07	Advanced Casting and Solidification of Light Alloys for Transportation	Prof. C. Ravi Ravindran [Canada]	Dr. B.S. Murty (MME)	4-11 July, 2016	1
31	161003G02	Scheduling Systems - An Integrated View on Models, Methods and Tools with a Focus on Manufacturing and Service Systems	Prof. Dr. Rainer Leisten, University of Duisburg-Essen, Germany	Dr. C. Rajendran (MS)	8-17 July, 2016	2
32	151003L11	Advanced Bridge Design and Construction	Prof. Joan Ramon Casas, Technical University of Catalonia (UPC), Barcelona, Spain	Dr. Ravindra Gettu (CE) Dr. Amlan K Sengupta (CE)	11-23 July, 2016	2
33	151003K03	Splines and Fractals in Approximation and Interpolation Theory	Prof. PD PETER MASSOPUST [Germany]	Dr. A.K.B. Chand (MA)	15-29 July 2016	2
34	151003L07	Stakeholder Management for Large Engineering Projects	Dr. Geert Dewulf, University of Twente, The Netherlands	Dr. Ashwin Mahalingam (CE)	18-24 July, 2016	1

35	151003K02	Randomized Algorithms	Prof. Aravind Srinivasan [United States of America]	Dr.C. Pandurangan (CSE)	18-31 July 2016	2
36	161003L12	Nonlinear Continuum Mechanics	Prof. Timon Rabczuk, Bauhaus University, Germany	Dr.Sundararajan Natarajan (ME)	18-29 July, 2016	2
37	161003L08	Advances in Seismic Hazard Analysis and Soil-Structure Interaction	Prof. Carlo G. Lai, University of Pavia, Italy	Dr. G. R. Dodagoudar (CE)	18-30 July, 2016	2
38	161003G01	Micro-Renewable Energy Architecture	Prof.Narayanan M. Komerath, Georgia Institute of Technology, USA	Dr.S. R. Chakravarthy (AE)	25th July 2016 to 5th August 2016	2
39	161003H04	Biomedical Engineering Systems	Prof.Steffen Leonhardt, Aachen University, Aachen, Germany	Dr.V. Jagadesh Kumar Dr. Boby George (EE)	25th July, 2016 to 5th August, 2016	2
40	161003K01	Distributed Network Algorithms: Foundations and Future Directions	Dr. Gopal Pandurangan, University of Houston, USA	Dr. John E. Augustine (CSE)	1-12 August, 2016	2
41	161003L04	Finite Elements in Fluids	Prof. P. Nithiarasu, Swansea University, UK	Dr. K. Arul Prakash (AM)	1-5 August, 2016	1
42	161003J03	Supply Chain Modeling and Decision Making	Prof. Kannan Govindan, University of Southern Denmark, Odense, Denmark	Dr. Arshinder Kaur (MS)	1-7 August, 2016	1
43	161003I14	Fluid Vortices : From Vorticity to Differential Geometry	Prof. Andrew Gilbert, University of Exeter, UK	Dr. Prasad Patnaik BSV (AM) Dr.A.J.Shaiju (MA)	1-6 August, 2016	1

44	151003F01	Negotiating a Democratic Space – Philosophy, Religion, and the State	Prof. Ronald Beiner [Canada]	Dr.Arvind Sivaramakrishnan (HS) Dr.V. R. Muraleedharan (HS)	6-12 August 2016	1
45	161003B11	Electrochemical Energy Conversion and Storage: Materials and Methods	Prof.A. Manthiram, The University of Texas at Austin, USA	Dr.P.Selvam (CY)	8-17 August, 2016	2
46	151003L01	Emerging Market Finance Research: Future Directions	Prof.Marti G. Subrahmanyam Leonard N. Stern School of Business, New York, USA	Dr. M. Thenmozhi (MS) Dr. S. Krishna Prasanna (MS)	8-12 August, 2016	1
47	161003N01	Gender Dimensions of Social and Economic Policies	Dr.Ajit Zacharias, Levy Economics Institute of Bard College, NY, USA	Dr.Binitha V Thampi (HS)	8-13 August, 2016	1
48	161003L16	Theoretical and Kinetics Aspects of Combustion	Prof. Kalyanasundaram Seshadri, University of California, San Diego, USA	Dr. V. Raghavan (ME) Dr. Krithika Narayanaswamy (ME)	16-22 August, 2016	1
49	161003B07	Friction Stir Welding and Processing	Prof.Rajiv S. Mishra, University of North Texas, USA	Dr.Ranjit Bauri (MME)	5-10 September, 2016	1
50	161003C03	Enhanced Oil Recovery from Heavy Oil and Fractured Reservoirs	Dr. Hassan Karimaie, StatOil, Norway	Dr. Jitendra S. Sangwai (OE)	11-17 September, 2016	1

51	151003G08	Fiber Lasers and Applications	Prof. Johan Nilsson, Univ. of Southampton, UK	Dr. Balaji Srinivasan (EE) Dr. Deepa Venkitesh (EE) Dr. Anil Prabhakar (EE)	13-24 September, 2016	2
52	151003B11	Fundamentals of Slag Chemistry	Prof. Geoffrey Brooks [Australia]	Dr. Ajay Kumar Shukla (MME)	25th September to 1st October, 2016	1
53	161003L07	Conceptual and Structural Design- Lightweight Structures	Prof. Mike Schlaich, Technische Universität Berlin, Germany	Dr. Devdas Menon (CE)	26th September, 2016 - 1st October, 2016	1
54	161003L02	Combustion and flow diagnostics	Prof. Andreas Dreizler, Technische Universität Darmstadt, Germany	Dr. S. R. Chakravart hy (AE) Dr. T. M. Muruganandam (AE)	26th September, 2016 - 7th October, 2016	2
55	151003A01	Rehabilitation of Heritage Structures	Prof. Claudio Modena [Italy]	Dr. Arun Menon (CE)	28th September to 8th October, 2016	2
56	161003B04	Thermochemical Modeling of Steelmaking Process	Prof. Olena Volkova, Germany	Dr. Ajay Kumar Shukla (MME)	11-17 October, 2016	1
57	151003K06	ABCD: An Algorithmic Toolkit for Big Data and e-Commerce	Prof. Ravi Sundaram, Northeastern University, United States of America	Dr. C. Pandurangan (CSE)	18-28 October, 2016	2
58	151003G04	Distributed Fiber Sensors and its Applications	Prof. Luc Thevenaz EPFL, Switzerland	Dr. Balaji Srinivasan (EE) Dr. Deepa Venkitesh (EE)	17-28 October, 2016	2



59	161003B03	Spectral Methods for Transport Phenomena Processes in Industry and Academic Research	Prof.G. Labrosse, President, TchebyFlow, France	Dr.S.Pushpavama (CH) Dr.T.Renganathan (CH)	31st October, 2016 to 11th November, 2016	2
60	161003C02	Environmental Chemodynamics	Prof. Louis J. Thibodeaux, Louisiana State University, Baton Rouge, USA	Dr. Ravi Krishna (CH)	7-18 November, 2016	2
61	161003G06	Attosecond Photonics – Science and Technology	Prof.Uwe Morgner, LeibnizUniversity ofHannover, Germany	Dr. Sivarama Krishnan (PH) Dr.Anil Prabhakar (EE)	7-11 November, 2016	1
62	161003L13	Scaled Boundary Finite Element Method	Prof. Chongmin Song, The University of New South Wales, Sydney, Australia	Dr.Sundararajan Natarajan	14-18 November, 2016	1
63	161003B12	Nanomaterials: Size- and Shape-Dependent Phenomena - Advances in Catalysis and Energy Materials Applications	Prof.Emil Roduner, University of Stuttgart, Germany	Dr.P. Selvam (CY)	14-23 November, 2016	2
64	161003D09	Advances in Flexible CMOS Radio Frequency Transceivers	Dr.Eric A.M. Klumperink University of Twente, The Netherlands	Dr.Shanthi Pavan (EE)	14-18 November, 2016	1

65	161003D07	Designing Smart Sensor Systems	Prof.K.A.A. Makinwa Delft University of Technology Delft, The Netherlands	Dr.Shanthi Pavan (EE)	21-25 November, 2016	1
66	161003M01	Origin and Evolution of Perturbations during Inflation and Reheating	Prof. Jérôme Martin, CNRS, Paris, France	Dr. L.Sriram Kumar (PH)	25-30 November, 2016	
67	161003C01	Hydroinformatics for Integrated Water Resources Management	Prof.R. Srinivasan Texas A&M University, USA	Dr.Balaji Narasimhan (CE) Dr.K. P. Sudheer (CE)	28th November, 2016 to 9th December, 2016	2
68	151003B10	Process Engineering Principles and Software for Pyrometallurgical Processes for Metal Extraction	Prof. David G. C. Robertson [United States of America]	Dr.Ajay Kumar Shukla (MME)	2-16 December, 2016	2
69	151003L16	Non-Destructive Testing of Pavements from Cradle to Grave	Prof. Soheil Nazarian, The University of Texas at El Paso, USA	Dr. A. Veeraragavan (CE)	5-10 December, 2016	1
70	161003L06	Cardiovascular Fluid Mechanics: Foundations	Prof.K.B.Chandran, University of Iowa, USA	Dr.Prasad Patnaik (AM) Dr. B.V.Rathish Kumar (MA, IITK)	5-10 December, 2016	1
71	161003L11	Micro and Nano Manufacturing Processes	Prof..K.P.Rajurkar, University of Nebraska-Lincoln, USA	Dr. G.L. Samuel (ME)	5-10 December 2016	1

72	151003G06	Physics of the Visual System for Engineers	Prof.Vasudevan Lakshminarayanan, University of Waterloo, Canada	Dr. A.R. Ganesan (PH)	5-20 December, 2016	2
73	161003806	Introduction to Metal Foams and Cellular Metals	Prof.John Banhart, Technical University Berlin, Germany	Dr. Manas Mukherjee (MME)	5-11 December, 2016	1
74	161003B01	Mechanics of Nano-Electronics Packaging	Prof. Cemal Basaran The State University of New York at Buffalo, USA	Dr.C.Lakshmana Rao (AM)	5-9 December, 2016	1
75	151003B09	High Temperature Structural Materials	Prof. Martin Heilmaier Karlsruhe Institute of Technology, Germany	Dr.V.Subramanaya Sarma (MME)	7-19 December, 2016	2
76	161003G04	MEMS Modelling and Nonlinear Dynamic Based Analysis	Dr. Mohammed Younis, SUNY –Binghamton, NY, USA	Dr.Manoj Pandey (ME)	7-21 December, 2016	2
77	151003K01	Partition of Unity Methods	Prof. N. Sukumar [United States of America]	Dr.Sundararajan Natarajan (ME)	12-18 December, 2016	1
78	151003L10	Building Resilient and Sustainable Roadway Infrastructure	Prof. Rajib Basu Mallick [United States of America]	Dr.A. Veeraraghavan (CE)	12-23 December, 2016	2
79	161003805	Non-equilibrium Processing of Advanced materials	Prof. C. Suryanarayana, University of Central Florida, Orlando, USA	Dr. B.S. Murty (MME)	12-18 December, 2016	1
80	151003K05	Foundations of Memory and Consistency Models	Prof. Suresh Jagannathan [United States of America]	Dr.V Krishna Nandivada (CSE)	19-23 December, 2016	1

81	161003I05	Mechanics of Fracture	Prof. Krishnaswamy Ravichandar, University of Texas at Austin, USA	Dr. K. Ramesh (AM)	19-23 December, 2016	1
82	161003B08	Contact Angles: Measurements, Interpretation and Modern Applications	Prof. J. W. Drelich, Michigan Technological University, USA	Dr.Ravi Kumar N V (MME)	20-25 November, 2016	1
83	161003D04	Fundamentals of Numerical Modelling and Simulation of Multi-Physics and Multi-Domain Systems	Prof.Alper Demir, Koc University, Istanbul, Turkey	Dr.Nagendra Krishnapura (EE)	2-6 January, 2017	1
84	161003B09	Sintering and Sintering-Free Processing of Ceramics and Microstructural Development	Prof.Rajendra K Bordia, Clemson University, USA	Dr.N.V.Ravikumar (MME)	2-8 January, 2017	1
85	161003H03	Creating Solutions in Minutes for People with Disabilities	Dr.Therese Willkomm, University of New Hampshire, USA	Dr.Anil Prabhakar (EE)	8-13 January, 2017	1
86	161003D06	Near/sub-threshold Circuits and Architectures for Microprocessors	Dr.Mingoo Seok, Columbia University, USA	Dr.Nagendra Krishnapura (EE)	9-13 January, 2017	1
87	161003M02	Complex Light	Prof.Kishan Dholakia, University of St Andrews, Scotland	Dr.Shanti Bhattacharya (EE)	16-21 January, 2017	1

88	161003J01	Data Analytics with applications to Healthcare	Prof.Soundar Kumara, The Pennsylvania State University, USA	Dr.R. P. Sundarraj (MS) Dr.C. Rajendran (MS)	23rd January - 3rd February 2017	2
89	161003L03	Multi scale Modelling for Polymeric Nano Composites	Dr. SD Jacob Muthu, University of the Witwatersrand Johannesburg, South Africa	Dr.R.Velmurugan (AE)	16-27 January, 2017	2
90	161003B08	Contact Angles: Measurements, Interpretation and Modern Applications	Prof. J. W. Drelich, Michigan Technological University, USA	Dr.Ravi Kumar N V (MME)	29th January 2017 to 4th February, 2017	1
91	161003F01	China Wired: Culture & Politics of New Media in China	Dr. James Leibold, La Trobe University, Melbourne, Australia	Dr.Sonika Gupta (HSS)	6-10 February, 2017	1
92	151003D05	Microwave Photonics-Technologies, Systems and Networks	Prof. Thas Nirmalathas	Dr. Deepa venkitesh(EE)	16-25 february,2017	2
93	161003D01	Advanced Group-IV Semiconductor Electronic and Optoelectronic Devices	Dr.Inga Anita Fischer, University of Stuttgart, Germany	Dr.Anil Prabhakar (EE) Dr.Bijoy K Das (EE)	15-21 February, 2017	1
94	161003C04	Petroleum Reservoir Characterization	Dr. Hassan Karimaie, Statoil, Norway	Dr.Jitendra S. Sangwai (OE)	26th February to 4th March, 2017	1
95	161003D08	Integrated Phase and Frequency Synthesis	Dr.Sudhakar Pamarti, University of California, Los Angeles, USA	Dr.Shanthi Pavan (EE)	1-15 March, 2017	2

96	151003L13	Process Analysis and Metrology for Discrete Products Manufacturing	Prof. Srinivasan Chandrasekar, Purdue University, USA	Dr.Balakrishna C. Rao (ED)	13-27 March 2017	2
97	161003D03	Silicon Photonics : Linear, Nonlinear, and Quantum Integrated Optical Devices and Circuits	Prof.Shayan Mookherjea, University of California, San Diego, USA	Dr.Bijoy K Das (EE)	19th March, 2017 to 1st April, 2017	2
98	161003H01	Pediatric Biomechanics – Deformities, Treatment and Injury Prevention	Dr.Sriram Balasubramanian, Drexel University, United States of America	Prof. S. Ramakrishna(AM)	20 - 24 march,2017	1
99	151003L15	Advanced Manufacturing Data Analytics Data Science for Smart Manufacturing	Prof. Satish T.S. Bukkapatnam,USA	Dr. N. Ramesh Babu(ME)	15th May - 26th May, 2017	2