I am pleased to present the fifth newsletter of the Centre for Continuing Education (CCE) to the IIT Kanpur community. The second wave of COVID 19 has had devastating consequences on many of us. However I am sure that with vaccination, masking, and social distancing, we will be able to come out of this pandemic soon. Despite the pandemic, I am glad to report again that several AICTE sponsored QIP programs, Short Term Workshops, MooCs, and Conferences were successfully conducted in virtual mode during the period between January to June 2021. All these events and activity have been made possible by the active support and cooperation of the IITK Faculty, staff, and community. We wish to thank them at the outset.

A total of thirty two (32) virtual events were conducted completely online under the aegis of the CCE. This includes twenty (20) AICTE sponsored QIP courses, which were conducted in a record span of three months. Twelve (12) other events including workshops, conferences, and short term courses were also conducted. The C3i has launched a popular industry oriented new course on blockchain during this period, while they continue to offer their courses on cyber security.

A total of hundred (100) polytechnic teachers were trained under the Entrepreneurship, startups, and innovation in academic institutions program. The Vigyan Jyoti program offered by CCE to the Kanpur Zone girl students for the year 2021 was widely appreciated at the National level. We have been requested to transmit our lectures to a Nationwide audience next year. We have also launched summer courses for training manpower in foreign languages like French, German, and Japanese. A new summer program on Introduction to Sanskrit language was also launched during this period.

We will make continued efforts to offer courses in virtual mode from IITK Faculty during the second half of 2021. We also eagerly look forward to host events physically as and when the pandemic ends. I am looking forward to reporting our activities again in the next newsletter. Take care and stay safe.

20 QIP Sponsored Courses
12 Self Sponsored Courses
QIP Sponsored Courses

18–23 January 2021

01 Laser Matter Interaction
Course Website: www.iitk.ac.in/qip/courses/20-21/laser-matter-interaction/

Coordinators
Dr. J Ramkumar
Professor, Department of Mechanical Engineering

Dr. Amandeep Singh
REO, Department of Mechanical Engineering

25–31 January 2021

02 Mastering Advanced Techniques of Characterization for High-end Research (MATCH –2021)
Course Website: www.iitk.ac.in/qip/courses/20-21/MATCH/

Coordinators
Dr. Kantesh Balani
Professor, Biomaterials Processing & Characterization Lab

Prof. Gouthama
Professor, Materials and Metallurgical Engineering

8–13 February 2021

03 Linguistic Diversity and Access to English
Course Website: www.iitk.ac.in/qip/courses/20-21/linguistic-diversity-and-access-to-english/

Coordinators
Dr. Usha Udaar
Assistant Professor, Department of Humanities and Social Sciences

Dr. Chaithra Puttaswamy
Assistant Professor, Department of Humanities and Social Sciences

15–20 February 2021

04 Financial Time Series Modelling in R: FinMODE–2021
Course Website: https://iitk.ac.in/qip/courses/20-21/FinMODE–2021/

Coordinator
Dr. Wasim Ahmad
Associate Professor, Economics Group, Department of Economic Sciences

22–27 February 2021

05 Decision and Control: Optimal Planning, RL & Games
Course Website: www.iitk.ac.in/qip/courses/20-21/decision-and-control/

Coordinator
Dr. Mangal Kothari
Associate Professor, Department of Aerospace Engineering

22–27 February 2021

06 Operations Research for Transportation Optimization
Course Website: www.iitk.ac.in/qip/courses/20-21/operations-research-for-transportation-optimization/

Coordinators
Dr. Faiz Hamid
Assistant Professor, Dept. of Industrial and Management Engineering

Dr. Partha Chakroborty
Professor, Department of Civil Engineering

1–6 March 2021

07 Introduction to HPC in Science & Engineering
Course Website: www.iitk.ac.in/qip/courses/20-21/HPC/

Coordinator
Dr. B. V. Rathish Kumar
Professor, Department of Mathematics and Statistics

1–6 March 2021

08 Advanced Ceramics and Composites for Multifunctional Applications
Course Website: www.iitk.ac.in/qip/courses/20-21/HPC/

Coordinator
Dr. Shikhar Jha
Assistant Professor, Department of MSE

Dr. Tanmoy Maiti
Associate Professor, Department of MSE

Dr. Shobit Omar
Associate Professor, Department of MSE
<table>
<thead>
<tr>
<th>Course Title</th>
<th>Start Date</th>
<th>Course Website</th>
<th>Coordinators</th>
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</table>
| Data Analytics                                                               | 1-6 March 2021   | [www.iitk.ac.in/qip/courses/20-21/data-analytics/](https://www.iitk.ac.in/qip/courses/20-21/data-analytics/) | Dr. Faiz Hamid  
Assistant Professor,  
Industrial and Management Engineering  
Dr. Devlina Chatterjee  
Associate Professor,  
Industrial and Management Engineering |
Assistant Professor,  
Materials Science and Engineering  
Dr. Kallol Mondal  
Professor,  
Materials Science and Engineering |
| Diagnostics of High Voltage Insulation                                        | 1-6 March 2021   | [https://iitk.ac.in/qip/courses/20-21/diagnostics-of-high-voltage-insulation/](https://iitk.ac.in/qip/courses/20-21/diagnostics-of-high-voltage-insulation/) | Dr. Nandini Gupta  
Professor,  
Department of Electrical Engineering  
Dr. Alok Ranjan Verma  
Assistant Professor,  
Department of Electrical Engineering |
Professor,  
Department of Mechanical Engineering  
Dr. Niraj Sinha  
Assistant Professor,  
Department of Mechanical Engineering |
Associate Professor,  
Department of Mechanical Engineering |
| Quantitative Approaches to Decision Making                                   | 8-13 March 2021  | [https://iitk.ac.in/qip/courses/20-21/quantitative-approaches-to-decision-making/](https://iitk.ac.in/qip/courses/20-21/quantitative-approaches-to-decision-making/) | Dr. Faiz Hamid  
Assistant Professor,  
Dept. of Industrial and Management Engineering  
Dr. Deep Mukherjee  
Associate Professor,  
Department of Economic Sciences |
| Principles of Pricing                                                        | 8-13 March 2021  | [https://iitk.ac.in/qip/courses/20-21/principles-of-pricing/](https://iitk.ac.in/qip/courses/20-21/principles-of-pricing/) | Dr. Bikramaditya Datta  
Assistant Professor,  
Department of Economic Sciences  
Dr. Vimal Kumar  
Associate Professor,  
Economics Group,  
Department of Economic Sciences |
| Theoretical and Practical Perspective on Material Manufacturing Technology    | 8-13 March 2021  | [https://iitk.ac.in/qip/courses/20-21/TPPMMT/](https://iitk.ac.in/qip/courses/20-21/TPPMMT/) | Dr. Anish Upadhyaya  
Professor,  
Department of MSE |
14-19 March 2021
Muffler Acoustics for Automotive Engine Noise Control
Course Website: https://iitk.ac.in/qip/courses/20-21/engineering-and-environmental-noise-control/
Coordinator Dr. Akhilesh Mimani
Assistant Professor, Department of Mechanical Engineering

15-20 March 2021
Transport in Nanoelectronics
Course Website: https://iitk.ac.in/qip/courses/20-21/transport-in-nanoelectronics/
Coordinator Dr. Rik Dey
Assistant Professor, Department of Electrical Engineering

15-21 March 2021
Frontier areas on Econometrics & Trade with Special Emphasis on Machine Learning & Firm level Trade
Course Website: https://iitk.ac.in/qip/courses/20-21/frontier-areas-on-econometrics/
Coordinator Dr. Somesh K. Mathur
Professor, Economics Group, Department of Economic Sciences

15-20 March 2021
Mechanical Behaviour of Materials
Course Website: www.iitk.ac.in/qip/courses/20-21/mechanical-behaviour-of-materials/
Coordinators
Dr. Nilesh Prakash Gurao
Assistant Professor, Department of MSE
Dr. Shashank Shekhar
Associate Professor, Materials Science and Engineering
Dr. Sudhanshu Shekhar Singh
Assistant Professor, Materials Science and Engineering

Self Sponsored Courses

01 Jan - 31 Dec 2021
SURGE Program
Coordinator Dr. Saravanan Matheshwaran
Assistant Professor, Biological Sciences and Bioengineering

15-26 February 2021
IITK Nextgen Trainig and Research School (NTRS) on PYTHON + R Projects for 5G Wireless Technologies- MU Massive MIMO and mm Wave MIMO
Coordinator Dr. Aditya K. Jagannatham
Professor, Department of Electrical Engineering

15-24 February 2021
Winter School on Physical Geodesy and its Applications
Coordinator Dr. Balaji Devaraju
Assistant Professor, Department of Civil Engineering

17 February - 7 March 2021
Modeling and Simulation of Nano-Transistors
Coordinator Dr. Yogesh Singh Chauhan
Associate Professor & Ramanujan Fellow, Department of Electrical Engineering
05  22-23 February 2021
SUNRISE India–UK Symposium on Energy Sustainability and Water
Coordinator
Dr. Raju Kumar Gupta
Associate Professor,
Chemical Engineering

06  1-3 March 2021
14th Capacity Building Programme for Officers of Electricity Regulatory Commissions
Coordinator
Dr. Anoop Singh
Professor,
Industrial & Management Engineering

07  4-12 March 2021
3rd Global Regulatory Perspectives Programme for Commissioners of Electricity Regulatory Commissions
Coordinator
Dr. Anoop Singh
Professor,
Industrial & Management Engineering

08  15-26 February 2021
IITK Nextgen Training and Research School (NTRS) on PYTHON + R Projects for 5G Wireless Technologies – "NOMA, Cooperative and Cognitive Radio"
Coordinator
Dr. Aditya K. Jagannatham
Professor,
Department of Electrical Engineering

09  10 May to 25 July 2021
Data Analysis in Criminal Justice
Coordinators
Dr. Mainak Chaudhury
Professor,
Computer Science Engineering
Dr. Arvind Verma
Center for Cyber Security and Cyber Defence

10  27 May to 4 June 2021
VORTEX 2021
Coordinator
Dr. Satyajit Banerjee
Professor,
Department of Physics

11  June 28 – July 1, 2021
IEEE Information Theory Society JTG/IEEE IT Summer School 2021
Coordinators
Dr. Adrish Banerjee
Professor,
Next Generation Broadcasting Chair Professor,
Department of Electrical Engineering
Dr. Ketan Rajawat
Associate Professor,
Department of Electrical Engineering

12  30 June to 4 July 2021
Advances in Robotics
Coordinator
Dr. Ashish Dutta
Professor,
Department of Mechanical Engineering
Dr. Anjali Vishwas Kulkarni
Principal Research Engineer,
Centre for Mechatronics,
Department of Mechanical Engineering
Prof. Sandeep K. Shukla is an IEEE fellow, and ACM Distinguished Scientist. He is currently a professor of Computer Science and Engineering department at IIT Kanpur which he headed during 2017-2020. He was the editor in chief of the ACM Transactions on Embedded Computing Systems during 2013–2020. He is currently associate editors of ACM Transactions on Cyber Physical Systems, and Journal of the British Blockchain Association. In the past he has served as associate editors of IEEE Transactions on Computers, IEEE Transactions on Industrial Informatics, IEEE Design and Test, and IEEE Embedded Systems Letters. Before joining IIT Kanpur in 2015, he was a professor at Virginia Tech, USA. He served as ACM Distinguished Speaker, and IEEE Computer Society Distinguished Visitor in the past. He has authored over 250 peer reviewed journal and conference papers, and authored/edited 10 books. He was awarded the Presidential Early Career Award in Science and Engineering (PECASE) in 2004 by the White House, The Fiedrich Wilhelm Bessel Award by the Humboldt Foundation in 2009, a Distinguished Alumnus Award by SUNY Albany in 2007, a Ramanujan Fellowship in 2015. His major research interest is Cyber Security of Critical Infrastructures, Cyber Security of IT/OT systems, and Applications of Blockchain Technology in Security and Privacy. He has taught MOOC courses in Cyber Security, and Blockchain. Currently he has been teaching a professional cyber security training program with Talent Sprint, and a Blockchain professional course on Simplilearn.