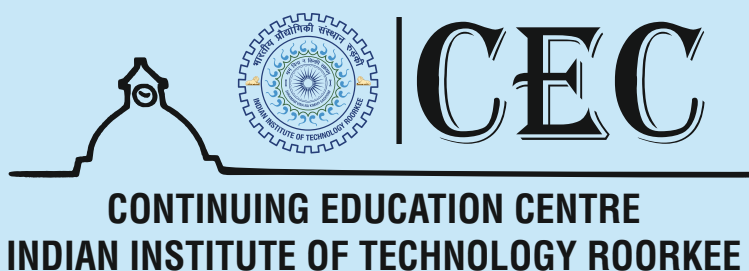


# NEWSLETTER

(2022-23)



**Volume-II**



## About CEC IIT Roorkee (CEC IITR)

**C**ontinuing Education Centre, IIT Roorkee was established in 1955 for the promotion of knowledge up-gradation by organizing refresher/specialist courses for executives, working professionals, and aspiring individuals. In addition to the knowledge up-gradation, CEC IIT Roorkee courses also offer a launchpad to learners in the domains that are most sought after by the industry. CEC conducts sponsored and open participation programs in various disciplines of engineering, science, technology, and management for learners both nationally and globally. Through these courses, CEC also provides the opportunity to visit and study at IIT Roorkee for a short duration. Apart from the technical expertise available in the Departments and Centres of the Institute, wherever necessary, experts from industries and R&D organizations are also invited to deliver talks/lectures.

With the world rapidly progressing towards a digital economy and ushering into industry 4.0, skills in the latest technologies including artificial intelligence, machine learning, 5G technology, IoE, robotics, biotechnology, and quantum computing are required to enhance India's workforce employability and competence. Thus, keeping in mind the need for training and upskilling of professionals / individuals, CEC IIT Roorkee has launched PG/advanced certificate courses in data science, AI/ML, cloud computing, 5G as well as other areas of interest to both industry and individuals seeking to build a career in the emerging technologies. The courses are curated and delivered through the collaboration of experts from IIT Roorkee, other academic institutions, and the industry. Further, in the year 2023-24, a number of new programs have also been planned. Our courses are not only conducted in physical classroom modes in Roorkee, Saharanpur, and Greater Noida campuses but also in online and hybrid modes.



# Message from the Director

I am glad to know that the Continuing Education Centre IIT Roorkee is bringing out its newsletter to highlight its activities and initiatives. One of the key goals of IIT Roorkee and CEC IIT Roorkee is to ensure that the impact of cutting-edge research and knowledge creation at IIT Roorkee extends beyond its campus. In addition to the short-term courses, a major new initiative of offering open participation long-duration courses in specialized domains such as AI/ML, Data Science, Cyber Security, 5G, and allied technologies has been started. The objective of these programs is to fill the gap in the availability of trained manpower in the latest and in-demand areas that the country needs. CEC IITR has also partnered with leading EdTechs to expand IITR outreach in delivering high-quality content for a wider audience nationally and internationally. Recently, several new courses sponsored by organizations like Deloitte, Indian Army, BEL, etc are planned to be organized by CEC. I appeal to our faculty members to come forward with their suggestions and course proposals to various calls for courses by Govt. departments/ public/ private organisations to disseminate the research knowledge beyond the campus.

I would like to congratulate the CEC team on the release of its Newsletter.



**Prof. Kamal Kishore Pant**

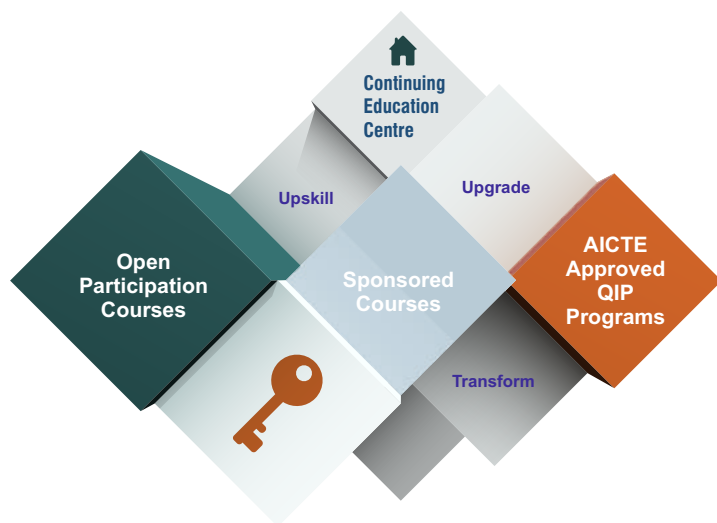


# Message from the CEC Coordinator

I am glad to present this edition of the newsletter of the Continuing Education Centre, IIT Roorkee (CEC IITR) for 2022-23. Through this newsletter, we would like to highlight the activities, accomplishments, and contributions of CEC IIT Roorkee towards IIT Roorkee and the country. At CEC IIT Roorkee, we are committed to making high-quality and transformational education accessible to executives, professionals, and aspiring individuals. In addition to sponsored short-term courses, CEC IITR has launched new major initiatives to offer longer-duration programs (up to a year) offering PG and advanced certifications. Through these open participation programs, we aim to reach out to aspiring individuals and professionals to develop cutting-edge competencies in their professional careers.



**Prof. Sanjeev Manhas**



Online open learning is also promoted by National Education Policy (NEP) encouraging the institutes to create a pool of learning content accessible to everyone. CEC has signed partnership MoUs with many organizations to offer courses and training programs in diverse areas. Our courses are also taken by participants worldwide and allow IITR to showcase expertise to a broader audience and open opportunities for collaboration. I am pleased to share that we have conducted more than 25 sponsored courses and more than 25 open participation courses. All these activities have been made possible by the active support and cooperation of the IITR faculty and staff. We believe that our programs would provide learning and upskilling rightly as per industry requirements and will enhance India's workforce competencies. In days to come CEC plan to expand its outreach by offering quality programs in both asynchronous and hybrid modes. I would like to thank IITR leadership for the continued support in meeting our objectives. As my tenure at CEC ends on March 31st, 2023, I congratulate and welcome Prof. Kaushik Ghosh (Dept of Chemistry), who will take over the role of Coordinator CEC wef 1st April 2023. I wish Prof. Ghosh and CEC team all the best.



# Achievements/Highlights

**28+**

Sponsored Course

**1500+**

Participant

**25+**

Open Participation Course

**1500+**

Participant



# New Initiatives

## MoU with Dr. R. S. Tolia Academy

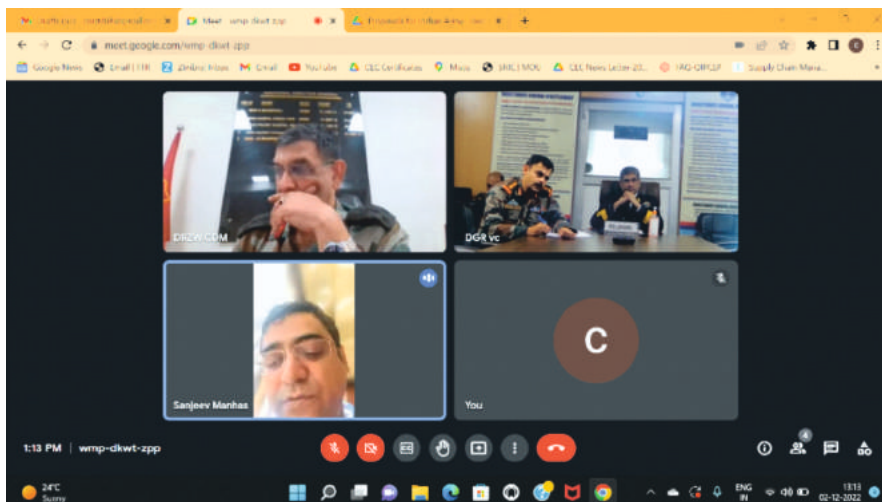
CEC ITR has signed an MOU with Dr. R. S. Tolia Uttarakhand Academy of Administration, Nainital (DRSTUAoA) is an apex training Institute of the State of Uttarakhand. The Academy (UAoA) has been conducting regular programs for MoEF&CC, MoJS, MoHUA, DopT, etc. The objective of the MoU is to establish joint program/training/ collaboration academic cooperation in areas of mutual interest, and in accordance with the terms and conditions set forth in this memorandum of understanding.



*Lecture by Prof. Neetesh Kumar, CSE ITR in training program conducted by Dr. R. S. Tolia Uttarakhand.*

## Courses for Indian Army officials

To extend our activities for the various sponsors, we are in the process to conduct professional courses for Indian Army officials who are on the verge of their retirement. Through this initiative, CEC ITR will provide the opportunity to retiring army officers to enhance their skill

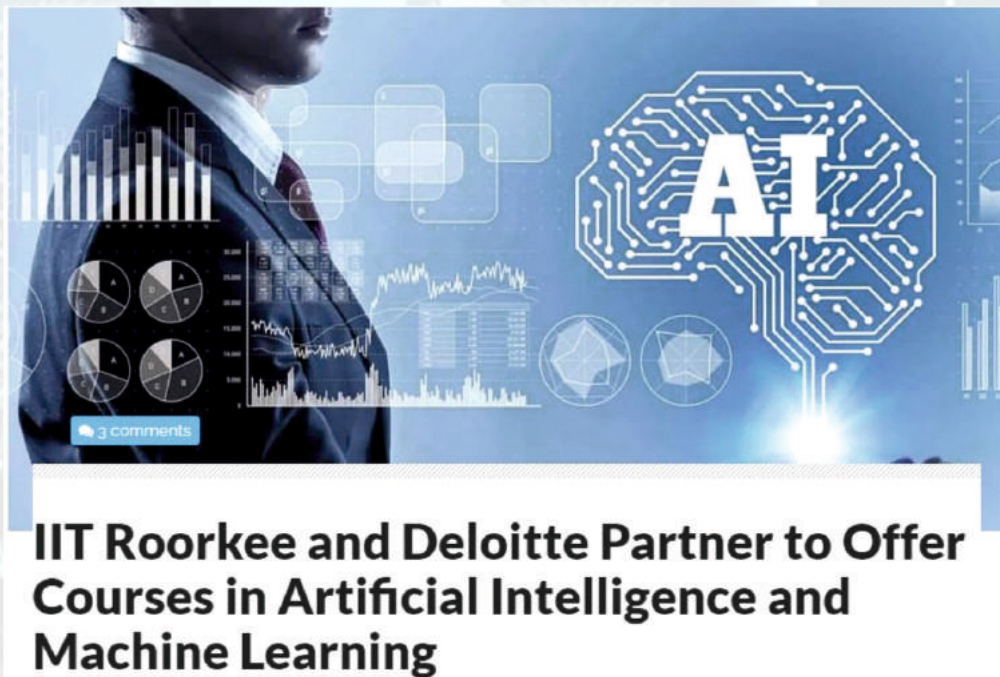


*Meeting of Coordinator, CEC with Indian Army officials*

sets, which would be useful to them for finding suitable employment post-retirement. Till now around 5- 6 proposals have been prepared the sent to Indian Army for their approval and one proposal on Drone Technology has been accepted which is scheduled to be held from June 2023 onwards.

### MoU with Deloitte Academy

IIT Roorkee and Deloitte announced their collaboration to deliver rigorous, immersive courses in artificial intelligence (AI) and machine learning (ML). Through this collaboration, the organizations aim to transform how organizations and academia work together to bridge the artificial intelligence talent gap and develop future leaders with a higher level of AI proficiency. This collaboration aims to impart industry-relevant skills to Indian talent in new-age tools and create a roadmap for the future of AI.



*News article in Dataquest*

### Upgradation of CEC Facilities

CEC has started to upgrade its available facilities, including the renovation of the infrastructure and upgradation of CEC classrooms, replacement of CEC furniture with the latest one, and setup of the recording facilities.



# Testimonials/Reviews



**Chinmoyuri B.** • 3rd+  
Senior Information Security Consultant  
1mo • 🌐

+ Follow ••

Thankful to be a part of it 🙏



**Continuing Education Centre, IIT Roorkee**  
1mo • 🌐

We are pleased to share that the Continuing Education Centre, [Indian Institute of Technology, Roorkee](#) has successfully conducted the 3 days campus immersion program during November 26- 28, 2022 as a part of the Post Graduate certification programs in Data Science, AI, and MLOps. The program includes the offline exam, the presentations, and the valedictory session.



**Raghav C R (He/Him)** • 2nd  
Quality Assurance Engineer | Industrial & Operations Management  
  
Good learning experience. Thanks for the program:  
Continuing Education Centre, IIT Roorkee

1w \*\*\*



**ANIL KUMAR** • 3rd+  
Logistics & Supply Chain  
  
Great learning experience  
[Continuing Education Centre, IIT Roorkee](#)

1w \*\*\*

Like • 🍷 2 | Reply



**Navneet Sharma** • 3rd+  
Supply Chain Specialist  
  
An eye opener wrt present market scenario wrt SCM. Thanks to IIT Roorkee,

1w \*\*\*

Like • 🍷 1 | Reply



# Open Participation Courses

## Digital Marketing and MarTech

This 4.5-month digital marketing & MarTech program is uniquely designed by the IIT faculty and industry leaders to help participants learn the functioning of the modern digital marketing industry, the use of technology, and digital marketing channels like social media, emails, paid and organic search. This comprehensive digital marketing course will enable participants to streamline their marketing processes, build digital marketing strategies and provide means to help businesses reach their target audience.

**Program Partner: Imarticus Learning**



**Prof. Kalpak Kulkarni**  
Course Coordinator

## Decision-Making using Data Science

Data scientists focus on extracting insights from data. Business managers focus on products and strategies that will deliver value and growth. IIT Roorkee's Post Graduate Certificate Programme in Decision Making Using Data Science (PGCP DMDS) is designed for working executives at the intersection of these two roles. The motivation is not just to generate insights, but also to think about how to put such insights into action in the broader business ecosystem. The program covers analytical techniques and software tools to implement data science, various projects to gain an immersive experience in handling different kinds of datasets and analytical scenarios, and various case studies and applications for the analysis of various business contexts. The curriculum is designed to bring a positive shift in the career graph.

**Program Partner: TimesPro**



**Prof. Abhishek Samantray**  
Course Coordinator

## AI for Managers

This Advanced AI for Managers course is designed exclusively for managers driven by case studies and real-world projects. The course equips the managers with the artificial intelligence (AI) and machine learning (ML) tools needed to manage any AI/ML projects/innovations. Furthermore, this course doesn't require any programming knowledge as a prerequisite. It will teach learners the building blocks of AI using real-world practical examples and case studies. Another unique feature of this course is the fact that we illustrate several business problems and cover all three major aspects of machine learning technology, i.e, supervised, unsupervised, and reinforcement learning.

**Program Partner: CloudxLab**



**Prof. Zillur Rahman**  
Course Coordinator

## ML for Finance

This program aims to demonstrate the applications of AI-based models in the finance domain. This includes the application of Python programming in solving real-life wealth management problems to improve investment decisions with AI. In this program, Learners will build a solid practical foundation in the finance domain and learn how to deploy AI and machine learning-based models to solve a variety of problems in the finance domain, including wealth management, algorithmic trading, investment banking, and more.



**Prof. Gaurav Dixit**

Course Coordinator

**Program Partner: Coursera**

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## Business Analytics for Strategic Decision Making

This Business Analytics program will help participants gain knowledge. They need to turn your organization's data into a tactical asset to generate business value. After completion of the course, the participants will be able to make data-driven strategic decisions for their organization with this Business Analytics for Strategic Decision-Making program by CEC IIT Roorkee.



**Prof. A. Ramesh**

Course Coordinator

**Program Partner: Simplilearn**

...

## HR Analytics

Lead digital transformation in the world of HR by leveraging business analytics concepts learned through this CEC IIT Roorkee HR Analytics certification course. This program helps you to understand the core topics related to analytics and their applications in the HR domain. It is important to develop an analytical mindset and evaluate business objectives in a scientific way to derive meaningful insights. This HR Analytics course will help participants to learn the concepts around analytics, their practical use cases, and techniques to build an analytical framework for their organization, with a special focus on the HR domain.



**Prof. Usha Lenka**

Course Coordinator

**Program Partner: Simplilearn**

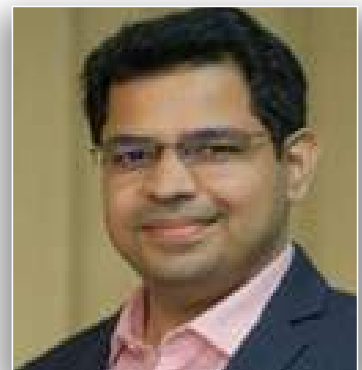
## Data Science and Machine Learning

The Post Graduate Certificate Program in Data Science & Machine Learning is an online program in partnership with TimesPro. The duration of the course is 11 months during which the learners are taught about the various aspects of Artificial Intelligence (AI) and Machine Learning (ML). The course that has been designed after several rounds of discussions with academicians and industry experts is a careful blend of the different topics of AI and ML and the necessary theory behind these concepts. The course is for working professionals and is well suited for fresher as well as for seasoned professionals. The course content includes topics like Python for DS, Statistical thinking Exploratory Data Analysis and Data Visualization, Essential Mathematics for DS and ML, Machine Learning Algorithms, Text Analytics, Programming with TensorFlow.

**Program Partner: TimesPro**



**Prof. Millie Pant**  
Course Coordinator



**Prof. Alok Bhardwaj**  
Course Coordinator

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## Artificial Intelligence & Deep Learning

This advanced certificate program is specially designed for students and working professionals who are looking to gain expertise in Artificial Intelligence and Machine Learning concepts. This course will cover TensorFlow, Regression, Classification, SVM, Random Forests, CNNs, RNNs, Reinforcement Learning, GANs, and more.

**Program Partner: CloudxLab**



**Prof. Gaurav Dixit**  
Course Coordinator



## Cybersecurity

In the Advanced certification program in cybersecurity, the participants will be able to deal with complex projects that will be related to the real world and that will demand a minute understanding of concepts and gain experience and capability in assessing the skills.

**Program Partner: Imarticus Learning**



**Prof. Peddoju Sateesh Kumar**

Course Coordinator

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## Machine Learning and Deep Learning

This PG Certificate Program is designed for those who want to gain hands-on experience in solving real-life problems using machine learning and deep learning. After finishing this specialization, participants will find creative ways to apply their learnings to your work. For example, they would like to build a robot that can recognize faces or change the path after discovering obstacles on the path, or maybe you would like to unearth hidden gems (like predicting next year's revenue or fraudulent transactions or building a recommendation engine etc) in your company's tons of data (logs, financial records, HR reports or e-commerce transactions reports).

**Program Partner: CloudxLab**



**Prof. Raksha Sharma**

Course Coordinator

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## Supply Chain Management & Analytics

The Professional Certification in Supply Chain Management and Analytics has been designed to provide a cutting-edge experience to candidates who wish to enter the operations and supply chain industry. Supply Chain Analytics enables management to make data-driven decisions at strategic, operational, and tactical levels. In the Supply Chain Management field, there is a shortage of professionals with process and analytics talents. This certification gets the participants ready for high-demand job roles such as Demand Planner, Data Scientist, Supply Planner, and Supply and Operations Planner.

**Program Partner: Imarticus Learning**



**Prof. Rajat Agarwal**

Course Coordinator

## Data Science and Machine Learning

This course provides all conceptual knowledge from Linear Algebra required in the domain of Data Science and Machine Learning. First, participants will be introduced to real vector spaces and then to the linear transformations and their representations in terms of matrices. Participants will learn the importance of Eigen pairs in machine learning and various concepts such as orthogonality and projection.



**Prof. Sanjeev Manhas**  
Course Coordinator

**Program Partner: Coursera**

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## Machine Learning Operations

This course deep-dives into machine learning and deep learning algorithms along with building expertise in DevOps technologies. By the end of this program, participants will be ready to design a machine learning system end-to-end starting from project scoping, data needs, modeling, and deployment. Also, they will be able to build pipelines for optimizing the model training process. Moreover, they will Apply various machine learning and deep learning algorithms to solve their business problems and Deploy your machine learning models to production using CI/CD pipelines through this course they will gain practical knowledge in TensorFlow, Keras, Linux, Git, Python, Docker, Kubernetes, Ansible, Terraform, Graffana, Prometheus and Jenkins.



**Prof. Raksha Sharma**  
Course Coordinator

**Program Partner: CloudxLab**

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## Accelerators for Deep Learning

This course aims to inform students, practitioners, and researchers in deep-learning algorithms about the potential and limitations of various processor architectures for accelerating deep-learning algorithms. At the same time, it seeks to motivate and even challenge the engineers and professionals in the architecture domain to optimize the processors according to the needs of deep-learning algorithms. Apart from performance and energy metrics, this course also discusses hardware reliability and security techniques for deep-learning algorithms and accelerators. A few real-life applications that benefit from AI-accelerators are reviewed, such as autonomous driving and brain implants. The course draws from recent research papers to showcase the state-of-art in these fields. To make the course self-sufficient, a reasonable amount of background is presented on both computer architecture and CNNs.



**Prof. Sparsh Mittal**  
Course Coordinator

**Program Partner: CloudxLab**

## Data Science

This PG Certificate Program in Data Science is an online course. This course covers some of the most trending and latest technologies in the market. The cutting-edge content provided through this course will help participants launch a career in the field of Data Science. Additionally, this course comes with our exclusive lab access to gain the much-needed hands-on experience to solve real-world problems.

**Program Partner: CloudxLab**



**Prof. Raksha Sharma**  
Course Coordinator

## 5G Technology & IoT

With the Post Graduate Certificate in 5G Technology and IoT, participants will build a comprehensive understanding of the underlying principles of advanced communication as they pertain to fifth-generation (5G) wireless communication in the 3rd Generation Partnership Project (3GPP). They will focus on key aspects of 5G and beyond while exploring 5G challenges for software-defined radios, optical communication for IoT applications, mining techniques for IoT and smart cities, and advanced signal processing aspects such as compressive sensing and sparse recovery. This program is ideal for communication industry professionals who want to understand various aspects of advanced communication systems and develop the software and hardware skills necessary to implement them.

**Program Partner: Coursera**



**Prof. Ekant Sharma**  
Course Coordinator

## VLSI Design

The Post Graduate Certificate in VLSI Design enables professionals to develop VLSI chip designing capabilities that can power new-age technologies like AI, IoT, VR, mobility, cloud, and analytics. In this course, participants will focus on reinforcing their fundamental understanding of MOS technology. Participants will explore band diagrams as an approach to device physics, build their understanding of MOS capacitors as two-terminal devices, and gain an in-depth introduction to advanced FETs and their applications. The program is ideal for VLSI industry professionals who want to leverage the expertise of modern tools and technologies.

**Program Partner: Coursera**



**Prof. Sudeb Dasgupta**  
Course Coordinator



## Advanced Machine Learning and AI

In this six-month comprehensive program, participants will enhance their expertise of deep learning techniques and its applications in AI. This course contains reading material and lectures on selected topics bridging the gap between advanced knowledge and the minimum level required to understand and use machine learning algorithms; however, learners with prior experience will find course content more accessible.

**Program Partner: Coursera**



**Prof. Partha Pratim Roy**  
Course Coordinator

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## Supply Chain Management in the . Digitalized Ecosystem

The program majorly assists participants with learnings in Supply Chain right from basics to implementation. It covers a first-class industry-led curriculum comprising Supply Chain techniques delivered directly by experienced professionals from IIT. The program is enriched with face-to-face interaction, customise learning with hands-on learning pedagogies, and projects delivered by very competent faculty.

**Program Partner: ImagineXP**



**Prof. Rajat Agarwal**  
Course Coordinator

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## Strategic SCM with AI

In this program, learners will build a solid foundation in machine learning (ML) techniques and focus on the deployment of artificial intelligence (AI) and ML in supply chain systems and processes. Participants will learn to apply machine learning technologies to transform conventional supply chains. Advance your career by learning in-demand supply chain management skills to increase efficiency, drive organizational growth, and make a positive business impact. Supply chain practitioners, business analysts, supply chain consultants, and anyone seeking to advance a career in operations and supply chain management will find this program useful.

**Program Partner: Coursera**



**Prof. Manu Gupta**  
Course Coordinator

## Introduction to Intellectual Property Rights

Creativity and innovation have been a constant in growth and Development of any knowledge economy. There is an abundance of creative and innovative energies flowing in India. An all-encompassing IPR Policy will promote a holistic and conducive ecosystem to catalyze the full potential of intellectual property for India's economic growth and socio-cultural development while protecting public interest. The rationale for the IPR policy lies in the need to create awareness about the importance of IPRs as marketable financial asset and economic tool. Creativity and innovation have been a constant in growth and development of any knowledge economy. There is an abundance of creative and innovative energies flowing in India. Keeping in view of this, the Institute Innovation Council of IIT Roorkee has taken an initiative in order to promote and foster the culture of Innovation by organizing various IP oriented awareness programs including Certificate course on "Introduction to Intellectual Property Rights". The course shall give a brief overview of the IP landscape. It shall dwell into the role of IP in the modern intangible economy.

### Open Course



**Prof. Rajat Agarwal**  
Course Coordinator

# Sponsored Courses

01

## Process and Plant Safety

April 13, 2022



**Prof. K.B. Mishra**  
Mechanical and Industrial  
Engineering Department

02

## DPR Preparation, Execution, and Monitoring of Projects under NMCG

April 13, 2022



**Prof. Arun Kumar**  
Department of Hydro and  
Renewable Energy

03

## Emerging Space Technology Applications for Compound Extremes 2022 (STAC - X 2022)

May 09 - 20, 2022



**Prof. Ankit Agarwal**  
Department of Hydrology

04

## Synergistic Training Program on Utilizing Scientific & Technological Infrastructure (STUTI)

May 24-30, 2022



**Prof. B.K. Yadav**  
Department of Hydrology

05

## Special Training Programme on Rail Bridge Dynamics

July 18 - 21, 2022



**Prof. Yogendra Singh**  
Department of Earthquake Engineering

06

## Disaster Management: Floods and Droughts

Aug. 04-06, 2022



**Prof. Deepak Khare**  
Department of Water Resources  
Development and Management



**Prof. Kasiviswanathan**  
Department of Water Resources  
Development and Management

07

## Certificate Course in Artificial Intelligence and Machine Learning

08- Sept. 02, 2022



**Prof. Kusum Deep**  
Department of Mathematics



**Prof. Millie Pant**  
Department of Applied Mathematics and  
Scientific Computing

08

## Preparing Managers for the 21st Century: An applied and skills enhancing approach

Aug. 16-31, 2022



**Prof. Sourabh Arora**  
Department of Management Studies



**Prof. Manu Gupta**  
Department of Management Studies



**Prof. Sumit Yadav**  
Department of Management Studies



**09****Application of SAR Technology in Disaster Management**

Aug. 22-26, 2022



**Prof. Dharmendra Singh**  
Department of Electronics and  
Communication Engineering

**10****Introduction to Intellectual Property Rights**

Aug. 22 to Sept. 09, 2022



**Prof. Rajat Agarwal**  
IPR Cell

**11****Water, Sanitation, and Hygiene**

Aug. 25-27, 2022



**Prof. Basant Yadav**  
Department of Water Resources  
Development and Management

**12****Applications of Remote Sensing and GIS in Agriculture**

Sept. 01-03, 2022



**Prof. Mohit P. Mohanty**  
Department of Water Resources  
Development and Management

**13****Enhancement of Efficiency of Hydro Machines**

Sept. 13-15, 2022



**Prof. R.P. Saini**  
Department of Hydro and  
Renewable Energy

**14****Keys Drivers for Hydropower and measures for reduction in Cost & Tariff of Hydro Power for its viability in the current scenario of High penetration of Renewable Energy**

Sept. 27 - 29, 2022



**Prof. Arun Kumar**  
Department of Hydro and Renewable Energy

**15****Certificate Course in Artificial Intelligence and Machine Learning**

Oct. 18 - Nov. 10, 2022



**Prof. Kusum Deep**  
Department of Mathematics



**Prof. Millie Pant**  
Department of Applied Mathematics and  
Scientific Computing

**16****Value Engineering & Analysis**

Oct. 27-29, 2022



**Prof. Inderdeep Singh**  
Department of Mechanical and  
Industrial Engineering

**17****Total Quality Management including Quality Control Tests**

Oct. 31 - Nov. 06, 2022



**Prof. Praveen Kumar**  
Department of Civil Engineering

**18****Control of Time & Cost Overrun of Projects - Project Time & Cost Management Programmes**

Nov. 06-08, 2022



**Prof. S.K. Singal**  
Department of Hydro and  
Renewable Energy

**19****e-ITEC Training program on Emerging Technologies for water/wastewater treatment**

Nov. 28-30, 2022



**Prof. Himanshu Joshi**  
Department of Hydrology

**20****Short-Term Training Course on Impact on Grid due high Penetration of Renewable Energy**

Dec. 01-03, 2022

**Prof. Himanshu Joshi**  
Department of Hydrology**21****Latest Technologies in Water Sector**

Dec. 05-09, 2022

**Prof. Ashish Pandey**  
Department of Water Resources  
Development and Management**22****Certificate Course in Artificial Intelligence and Machine Learning**

Dec. 20, 2022 - Jan. 17, 2023

**Prof. Kusum Deep**  
Department of Mathematics**23****Short Term Training Course on Regulatory Framework and Operation of Power Station**

January 09-13, 2023

**Prof. Arun Kumar**  
Department of Hydro and  
Renewable Energy**24****Customized Training to IRCON Employees on Advance Surveying**

January 9-13, 2023

**Prof. Kamal Jain**  
Department of Civil Engineering**25****Training of Trainers (ToT) under Jal Urja Mitra Programme**

January 18-28, 2023

**Prof. Arun Kumar**  
Department of Hydro and Renewable Energy**26****Cost Effective Selection and Designs of SHP Projects**

Jan. 30 - Feb. 07, 2023

**Prof. Arun Kumar**  
Department of Hydro and  
Renewable Energy**27****International Training Programme on Water Transmission and Distribution Engineering**

Feb. 14-17, 2023

**Prof. Basant Yadav**  
Department of Water Resources  
Development and Management**Prof. M.L. Kansal**  
Department of Water Resources  
Development and Management**28****Road Safety Auditors Certification Course**

Feb. 20 - Mar 06, 2023

**Prof. Indrajit Ghosh**  
Department of Civil Engineering

## Faculty in Focus



**Prof. Praveen Kumar**

**Prof. Praveen Kumar (PK)** is a Professor of Transportation Engg (HAG Scale) and Head of the Civil Engg Deptt of IIT Roorkee. He was the Director of the National Institute of Technology Delhi between Oct 2018 and Aug 2020. He worked as Associate Dean (Faculty Affairs) of IIT Roorkee from Jan 2010 to Dec 2012. He was assigned the responsibility of Coordinator, Transportation Engineering Group of the Civil Engineering Department for the session 2010-2012 and again on Dec 2015 to July 2018.

He obtained M.E. and Ph.D. from the University of Roorkee (now IIT Roorkee). He has served the Central Road Research Institute, New Delhi for six years as a Scientist in Soil Stabilization and Rural Roads Division. He has wide experience of test track construction using waste materials in Andhra Pradesh, Bihar, Orissa, and Delhi. His areas of specialization are Waste Material Utilization in Low-Cost Roads, Rural Roads Network Planning, Pavement Materials, Pavement Performance Studies, and Intelligent Transport Systems.

Dr. Praveen Kumar has published about 400 research papers in National and International Journals and Conferences. He has completed about 200 sponsored and consultancy projects. He has developed the Rural Roads Master Plans of various districts in Andhra Pradesh, Rajasthan and Uttar Pradesh based on Optimal Rural Road Network Planning. He has edited CRRI Research Journal "Sadak Darpan" for about Six Years. He has won CSIR National Prize for the year 1995-96. He was awarded the Best Research Paper Award (Bihar PWD Medal) by Indian Roads Congress for year

1999-2000 and again in 2016-17. All India Council for Technical Education (AICTE) has given him the prestigious "Young Teachers' Career Award" for R & D work on Low Cost Roads. He is also a recipient of the highest award of Indian Roads Congress –Pt. Jawaharlal Nehru Centenary Award-2000. The Institution of Engineers (India) has given him the Best Paper Award in 2002, 2009 and 2013. Indian Institute of Technology, Roorkee has given him Outstanding Teacher Award for 2003, 2007 and 2011. Besides Best Paper award of ISCMS-2002, he was adjudged as Star Performer for overall Performance by IIT Roorkee in 2003-04, 2004-05 and 2005-06. Air India has given him BOLT (Best Teacher Award) in 2006 & again in 2007. Dr Praveen was a part of Six Member National Executive Committee of Pradhan Mantri Gram Sadak Yojna (PMGSY) looking after the Mega Yojna at National Level for 2003 to 2018. He was the Coordinator of Principal Technical Agency and State Technical Agency for PMGSY till 2018. He has organized 41 training courses at IITR to train about 1200 field engineers of UP, Uttarakhand and other states for PMGSY. He has delivered a number of lectures in various parts of the country for the benefit of engineers of North East, Gujrat, Maharastra, MP, H.P., Haryana, Jharkhand, J&K etc. He has also contributed to the manual of rural roads developed by Rural Roads Committee of IRC (H-5). Dr Praveen has developed various software, which are useful in the field of Roads and Road Transport.



## Faculty in Focus



**Prof. Millie Pant**

**Prof. Milli Pant (MP)** is a Professor and Head of the Department of Applied Mathematics and Scientific Computing of Indian Institute of Technology Roorkee, India. Her expertise is in optimization algorithms, soft computing techniques, image processing, and decision-making processes. She has published more than 200 articles in various journals and conferences of national and international repute. She has more than 5000 google scholar citations and her H-index is 38. She has supervised 14 Ph.D. students and currently, 10 students are doing Ph.D. under her supervision. She has completed 2 bilateral projects with Germany and Russia, sponsored by DST-RFBR and DST-DAAD respectively, and one national project sponsored by DST. Presently, she is handling one bilateral project with Czech Republic DST/INT/Czech/P-12/2019, one project with Liverpool Hope University, UK and one project with DRDO, India DRDO/DFMM/PL/83266/M/01/1976/D(R&D). She has conducted several short-term courses sponsored by DST and QIP in the areas of optimization, evolutionary algorithms, and artificial intelligence. Presently, under Continuing Education Centre (CEC) she is coordinating Post Graduate Certificate Program in Data Science and Machine Learning (PGCP-DSML) in collaboration with TSW, Times Group. Under this scheme, 4 batches are completed while 2 batches are in progress. The PGCP-DSML is an 11-month-long program for working professionals and covers various aspects of Data Science and Machine Learning. On average, each batch has more than 50 learners.

# CEC STAFF

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Mr. Subhash Chand



Mr. Sharad Sharma



Mr. Sonal Kumar



Ms. Shakti Sahni



Mr. Ravindra Kumar

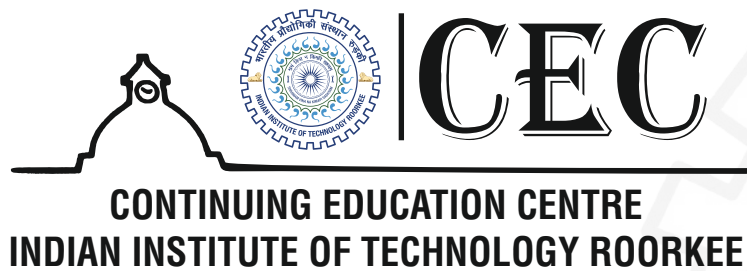


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