Department of Mining Engineering, Indian Institute of Technology Kharagpur

With Resource Personal Cooperation from

INAE, Ministries of Science and Technology, School of Business Management , Departments of Computer Science (as would be available)

Announces

Full 5 day Offline* Short term Course for the Executives

15.11.2022 to 19.11.2022 at IIT Kharagpur

on

" Emerging Enabling Technologies for Performance Improvement" (ETPI 2022)

Version: 01

(Course Code: 'ETPI'2022)

*Please see Section - 3

1. Introduction

Today, more than ever, it's important for the mine, factories and plants based company executives to understand what hype is, what reality is and how to navigate the opportunities and risks the emerging technologies and market bring. Along with the understanding in the business implications, all professionals from top to the bottom and across disciplines should know what the enabling technologies can deliver to the topline and bottom line. And these developments will be both far reaching and deep in the industry from mines and plants (local) to corporate (global). This course can open the eyes of the operational, planning and decision making executives not only to appreciate the technologies but also will make them brave to use these technologies in sites, business, transactions and the corporate.

Price water House Coppers (PwC) analyzed and opined that the most potential and Essential are Eight technologies. They include: **artificial intelligence (AI), augmented reality (AR), block chain, drones, Internet of Things (IoT), robotics, 3D printing and virtual reality (VR).**

Today, the Essential Eight continue to evolve and make their mark — with the pandemic accelerating emerging tech adoption. Some, like AI, are becoming integral to every type of company. Others, such as 3D printing, have been reaching new areas. All these individual technologies are combining in transformative ways. While there are other promising technologies like quantum computing and nanotechnology, the most practical and profound impact in the next five years will continue to come from this **Essential Eight. But the difference is in how they will work together to deliver the impact.**

This convergence reconfigures the eight essential technologies into six power combinations: **automating trust, immersive interfaces, extended reality, working autonomy, digital reflection and hyper-connected networks.** This course for the first time in the country will provide opportunities to the busy and professional executives to learn about the changes that are going to have impacts.

2. The Contents of the Course :-

Various industry and academic professionals will deliberate on the importance of the following technologies to improve performance.

1) Artificial intelligence 2) Augmented reality 3) Block chain 4) Drones 5) Internet of Things 6) Robotics 7) Virtual reality 8) 3D printing.

And connected with the above eight, the following will be related

1) Efficiency Improvement 2) Smart Decision making 3) Vertical and horizontal alignment 4) Ethical and legal behaviors and compliance 5) Data security and resilience.

3. Offline / Online Course Decision:

The course will be offered online in a Covid absent situation. The final decision of the mode of conduct **(Offline/**Online**)** will be based on the COVID situation as per IIT Kharagpur Directive at the time of the course.

4. Who should attend:

The course is designed for the executives of Public and Private industries, Department of State, and Central ministry, Public Utilities, Core Industry , Mining, Oil and Gas, PWD, Railway, Aviation, Port, Roads, Power, Highway Authority, DM's Office, Banks and other officers as appropriate.

5. Course Fee :

The fee of this online programme is Rs.23,000.00 per participant, GST@18% will have to be paid as per GOI rules.

6. Accommodation

In case of offline mode, IIT Kharagpur Guest House accommodation will be available.

7. How to Join:

Use the Link: (https://erp/iitkgp.ac.in/CEP/courses.htm)

Sign up → **Login** → **Profile Fill up** → **Choose a program** → **Apply Now**

In the above, detailed procedure for applying through IIT Kharagpur online course, registration portal is enclosed along with this brochure).   Online payments can also be done through the link.

8. After Confirmation:

Please email the list of the participants, their designations, valid email address and mobile numbers as early as possible .

9. Important:

Please note nominations would be considered as confirmed participation and   would remain chargeable to the extent of a regular candidate as above, even   if the candidate or his/her replacement fails to turn up. IIT Kharagpur will not be in a position to negotiate on the above.

10. Payment Mode:

All bank payments from sponsoring agencies have to made by online through "RTGS & NEFT"

Bank Details and Electronics Transfer: Mechanism :

Name of the Account:	DEAN, CE, IIT Kharagpur
Banks Name:	Canara Bank
Branch Name:	IIT Kharagpur
Account No. (as appearing on the Cheque book):	95562200002955
IFSC Code (Indian Financial System code for RTGS):	CNRB0019556
PAN No:	AAAJ10323G

11. Strength:

Apart from world class faculty, the Institute and the department have state of the art laboratories for Environmental Pollution and Control, Clean technology lab, safety and human factors lab, rescue and disaster management, and ventilation labs. Other Institute laboratories will also be put to use.

12. Faculty:

The eminent resource persons and faculty of IIT, Kharagpur and other institutes, and personnel from the industry will conduct the lectures and demonstration.

13. About Convener:

Dr. Jayanta Bhattacharya, FNAE is a professor of standing in Mining and Environmental Engineering. He was member of EAC- 1 of MoEF and currently a member of SEAC, West Bengal Government. He has 8 books and more than 100 technical papers in many national and international journals. He works with many public and private agencies as consultants and advisors. He is the chief Editor JMMF and IJPRVD.

14. Address for Communication:

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