



MHRD Scheme on Global Initiative of Academic Networks (GIAN) Course
on
“TREATMENT & VALORIZATION OF WASTES”
January 23 - January 27, 2023
Organized by Department of Civil Engineering
Indian Institute of Technology (Indian School of Mines), Dhanbad, India



Last date for registration 15 January, 2023

Course Overview

This course deals with the problems associated with the generation of industrial wastes and their impact on the environment and public health. The course will focus in the minimization of wastes, reuse and recycling of materials, and waste valorization process and technologies. Urban wastes and the facilities for their treatment will also be included in the course. The concept of sustainability and circular economy will be of major interest in the analysis and design of any waste management system.

The main objectives of the course are as follows:

- Understand the problems associated with the wastes and its impact on the environment and health
- Analyze the technical solutions available for the management and treatment of wastes
- Understand the principles of sustainable engineering applied to manage and valorize of wastes
- Design the waste management systems in a context of sustainability and circular economy
- Life Cycle Assessment via opensource/commercial software in the Tutorial/Practical Class

Faculty



Prof. Claudio Comeselle is a Professor at the University of Vigo, Spain. He has over 25 years of teaching and research experience with focus on (i) treatment and valorization of industrial wastes and (ii) advanced treatment processes for industrial effluents. He has published 2 books, 8 book chapters, and more than 80 journal publications and presented 26 papers in teaching innovation conferences. He is coauthor of the book “Sustainable Engineering: Drivers, Metrics, Tools, and Applications”. His areas of expertise includes: engineering solutions for industrial effluents and wastes, and valorization of recycled materials. His research is leading to practical solutions to the real-world problems



Dr. Sarat Kumar Das is a professor and head of the department of Civil Engineering at the Indian Institute of Technology (ISM) Dhanbad, India. He has about 30 years of experience in Civil and Geotechnical Engineering both in the fronts of academia and industry. His research interests include Sustainable and Geoenvironmental Engineering, Waste utilization, and Biogeotechnics. His work on wastes utilization mainly focused on industrial wastes such as bauxite residue, fly ash, coal mine over burden, ferrochrome slag. He has published 7 book chapters, one patent (granted) and more than 70 journal publications. He is Editorial Board member of two international Journals and reviewed for 60+ journals.

Who should attend?

- Students at all levels (B. Tech. / M. Tech. / Ph.D.) or faculty from academic institutions
- Executives, engineers and scientist and working professionals from Industries and R & D Laboratory
- Policy planners and Officials from regulatory authorities like Housing and Urban bodies, Central and state pollution control board and other R&D laboratories

Course Registration

- Visit <http://www.gian.iitkgp.ac.in/GREGN/index>
- Register by paying Rs 500/- (those who have already been registered, need not pay again)
- Opt the course (Course ID: 191058C02) in registration tab and save.
- Inform to the course coordinator by e-mail.
- Course coordinator will confirm your attendance and you must pay the course fee

Abroad (Faculty/Researchers/ Professional): 100USD

Abroad (Other students): 50USD

Industry: Rs. 5000/-

Academic (Faculty/Researcher): Rs. 2000/-

Academic Institutions (Students): Rs. 500/-

By NEFT

(Account holder name: The Registrar, Indian Institute of Technology (ISM) Dhanbad: Account No. 0986101009746; IFSC Code: CNRB0000986; Bank: CANARA BANK; Branch Name: Saraidhela Dhanbad)

OR

by sending a demand draft in favour of
"Registrar, IIT(ISM) Dhanbad" payable at Dhanbad – 826004.

OR

you may use our following online payment option of Canara Bank to deposit the course fees on or before January 15, 2023.
https://eps.eshiksa.net/DirectFeesv3/IIT_Dhanbad/index

Course Coordinator

Prof. Sarat Kumar Das

Professor, Department of Civil Engineering,

Indian Institute of Technology (Indian School of Mines), Dhanbad-826004, INDIA.

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Schedule

Day 1	Inaugural Session 12.30-1.00(IST)/9.00-9.30 (CET)		Day 3	Lecture-8	Analysis of material cycle: Industrial Ecology	
	Lecture-1	Generation of waste. Types and Classification of wastes		14:30-15:30(IST)	Dr. Claudio Cameselle	
	14:00-15:00(IST)	Dr. Claudio Cameselle		11:00-12:00 (CET)		
	10.30-11.30 (CET)			Lecture-9	Physicochemical treatment of waste	
	Lecture-2	Management of wastes		15:30-16:30(IST)	Dr. Claudio Cameselle	
	15:00-16:00(IST)	Dr. Claudio Cameselle		12:00-13:00 (CET)		
	11:30-12:30 (CET)			Day 4	Lecture-10	Life cycle analysis of Industrial wastes
	Tutorial-1	Overview on Generation and impact of Industrial wastes in India			14:00-15:30(IST)	Dr. Claudio Cameselle
	17:00-19:00(IST)	Prof. Sarat Kumar Das			10:30-12:00 (CET)	
13:30-15:30 (CET)		Lecture-11	Ecological footprint and carbon footprint			
		16:30-18:00(IST)	Dr. Claudio Cameselle			
Day 2	Lecture-3	Characterization of Industrial wastes in India- Case studies	13:00-14:30 (CET)			
	10:30-12:00(IST)	Prof. Sarat Kumar Das	Tutorial-3	Life cycle analysis: Examples		
	7:00-8:30 (CET)		18:30-20:30(IST)	Dr. Claudio Cameselle		
	Lecture-4	Hazardous waste: Codification and labeling	15:00-17:00 (CET)			
	12:30-13:30(IST)	Dr. Claudio Cameselle	Day 5	Lecture-12	Valorization of the inorganic fraction	
	9:00-10:00 (CET)			13:00-14:00(IST)	Dr. Claudio Cameselle	
	Lecture-5	Management and treatment of hazardous wastes		9:30-10:30 (CET)		
	14:30-15:30(IST)	Dr. Claudio Cameselle		Lecture-13	Valorization of the organic fraction	
11:00-12:00 (CET)		14:00-15:00(IST)		Dr. Claudio Cameselle		
Tutorial-2	Characterization methods of industrial wastes	10:30-11:30 (CET)				
17:00-19:00(IST)	Dr. Claudio Cameselle	Lecture-14		Review of the Course		
13:30-15:30 (CET)		16:30-17:30(IST)		Dr. Claudio Cameselle		
Day 3	Lecture-6	Characterization of Industrial wastes as a geomaterial	13:00-14:00 (CET)			
	10:30-12:00(IST)	Prof. Sarat Kumar Das	Tutorial-4	Final Examination		
	7:00-8:30 (CET)		18:30-20:30(IST)	Prof. Sarat Kumar Das		
	Lecture-7	Recycling of materials	15:00-17:00 (CET)			
	12:30-13:30(IST)	Dr. Claudio Cameselle				
	9:00-10:00 (CET)					

Important

- Participants for the course will be selected on first come first served basis.
- Number of participants for the course will be limited to eighty.
- All registered participants must fill this form: <https://forms.gle/JV98k2LvMgzGdF2A7>
- All participants will be provided course completion certificates.

or Scan



Course Coordinator

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