ENVIROMENTAL REMEDIATION OF CONTAMINATED SITES

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TYPE OF COURSE : Rerun | Elective | UG/PG
COURSE DURATION : 12 weeks (18 Jan’ 21 - 09 Apr’ 21)
EXAM DATE : 25 Apr 2021

PRE-REQUISITES : Entry level chemistry course, and understanding of chemical, physical and biological processes on Environmental Engineering

INTENDED AUDIENCE : Environmental engineering professionals and students pursuing a degree with emphasis in Environmental engineering.

INDUSTRIES APPLICABLE TO : CPCB, SPCB, Degremont, ERM, Ramky Enviro Engineers, Veolia Water, SFC Environmental Technologies Pvt. Ltd., Nalco Water, VA Tech Wabag, Thermax

COURSE OUTLINE :
The course details the usual remediation techniques practiced worldwide and provide an understanding of the relevant theoretical concepts. The current course will enable a student to:

• Develop understanding of integrated approaches to remediating contaminated sites.
• Develop the ability to screen, choose and design appropriate technologies for remediation.

ABOUT INSTRUCTOR :
Dr. Bhanu Prakash Vellanki, is an Assistant Professor at IIT Roorkee. He holds a PhD in Civil Engineering with a specialization in Environmental Engineering from Texas A&M University. During the course of his doctoral work, Dr. Vellanki developed a new class of treatment processes, called the Advanced Reduction Processes. His research interests include Advanced Redox Processes, industrial/hazardous waste treatment, and emerging contaminants.

COURSE PLAN :
Week 1: Introduction
Week 2: Laws, Regulations and Remediation
Week 3: Risk Assessment
Week 4: Remedial Options:Introduction
Week 5: Administrative Options
Week 6: Groundwater
Week 7: Soils/Sediments
Week 8: Solidification/Stabilization
Week 9: Chemical Treatment
Week 10: Bioremediation
Week 11: Phytoremediation
Week 12: Thermal Processes, Soil Washing