

ENVIRONMENT AND ITS SUSTAINABILITY

Overview

It is known that the Environment is subjected to the serious pressure caused by the activities of mankind. The world has accumulated a lot of man-made wastes, which are intensively dispersed in biosphere. To understand the main trends of the impact of pollutants and xenobiotics on the nature and resist this negative influence it is necessary to study the transformation and transport of the matter in the natural media (atmosphere, hydrosphere, lithosphere and living organisms). But there are a lot of things to do for achievement a harmony between man and nature. Firstly we have to estimate the real situation by experimental researches of pollutants distribution in environment. Obviously that economic activity should be based on technologies which are most friendly to the nature such as Green chemistry. However, this demands for mitigation of the consequences of anthropogenic impacts by developing approaches that focus on the control of hazardous substances. There are lots of highly contaminated regions in the world, thus discussion of the concept and methodologies from the point of ecosystem preservation will help in creation the framework for cleaning of these sites and their sustainable functioning. The knowledge in the field of environmental sciences providing will bring a comprehensive understanding of a number of problems in this area.

The internationally reputed experts working in the field of environmental engineering, chemistry and phytoremediation technology will deliver lectures and discuss cases relating to the chemical aspects of environment contamination and clean-up.

Objectives	<ol style="list-style-type: none"> 1. Exposure of participants to the fundamentals chemical aspects of the elements behavior in nature. 2. Formation of representations concerning modeling of pollutants distribution in environmental mediums. 3. Development of approach for the study of hazardous metals transformation and transport in contaminated areas on the example of the mining tailings ponds. 4. Acquisition of the knowledge about the plants ability to accumulate the toxic substances. 5. Building awareness about the current state of phytoremediation practical use. 										
Course Topics	Fate of Heavy Metals in the environment and their impacts, Methods for examination of the natural media (elemental and material composition). Modeling of the pollutants distribution in contaminated areas, Metals transformation and transport in hazardous wastes, Phytoremediation as a green revolution in ecology										
Dates for the course	19 – 23, November 2018										
Target Group	<ul style="list-style-type: none"> ▪ Student at all levels (B.Tech/M Tech/Ph D) and Faculty from reputed academic institutions and technical institutions can benefit from this program as the credit course. ▪ Engineers, working officials of NGOs, and researchers in the field of water and environment can attend to this course. ▪ Student, teachers and working officials of SAARC countries can also attend to this course. 										
Fees	<p>The participation fees (Excluding Lodging & Boarding) for taking the course is as follows:</p> <table> <tr> <td>Students Participants without/with Grading</td> <td>Rs. 1000/Rs. 2000</td> </tr> <tr> <td>Faculty (Internal & External) & Scientists</td> <td>Rs. 4,000</td> </tr> <tr> <td>Persons working in Industry / Consultancy firms</td> <td>Rs. 8,000</td> </tr> <tr> <td>Foreign Students</td> <td>USD 100</td> </tr> <tr> <td>Other Foreign Participants</td> <td>USD 200</td> </tr> </table> <p>The above fee include all instructional materials, computer use for tutorials and assignments, laboratory equipment usage charges, 24 hr free internet facility. The participants will be provided with accommodation on payment basis.</p>	Students Participants without/with Grading	Rs. 1000/Rs. 2000	Faculty (Internal & External) & Scientists	Rs. 4,000	Persons working in Industry / Consultancy firms	Rs. 8,000	Foreign Students	USD 100	Other Foreign Participants	USD 200
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Other Foreign Participants	USD 200										
Evaluation and Grading	Students registered with grading will be evaluated for two credits based on continuous evaluation in tutorials, midterm and end of course examinations. Grade will be awarded based on the performance in the evaluation.										

The Faculty International Expert



Dr. Olga Shuvaeva, Professor in Chemistry at Novosibirsk State University (Novosibirsk, Russia). She is an expert in Analytical & Environmental Chemistry, mainly focused in elements transformation & transport in natural and technogenic systems. Dr. Olga Shuvaeva is a member of Academic Council of Natural Sciences Department at NSU, a member of Dissertation Council of Nikolaev Institute of Inorganic Chemistry, Invited Expert of Federal Service for Supervision of Natural Resources (Siberian Dt.) and a member of the Scientific Council on Analytical Chemistry of Russian Academy of Sciences, Siberian Branch. Her administrative experience include Leading Research Scientist at Nikolaev Institute of Inorganic Chemistry, SB, RAS (Academic Affairs), Head of Environmental Chemistry Chair, Natural Sciences Department, NSU Novosibirsk, Professor, Student Training at Natural Sciences Department, NSU, Member of Examination Committee, NSU and Chairman of the Examination Committee at Dostoevsky Omsk State University (Omsk, Russia). She is Invited participant in Research Discussion at the University of Tianjin (China), involved in Cooperative Research Program between the School of Chemical Engineering and Technology at Tianjin University and NSU as Principal Investigator, act as supervisor of research training for the scholar from Warwick University (UK) on the basic techniques in speciation analysis, act as a Chairperson in 11th International Phytotechnology Conference, annually appointed as a Jury Chairman in International Ecological Student Conference at NSU, Invited member of the Organizing Committee of OMICS International Conferences on Past and Present Research Systems of Green Chemistry in USA. She is an author of more than 90 publications in domestic and international scientific journals and acts as reviewer in international journals (Electrophoresis, Geochemistry, Russian Journal of Analytical Chemistry, etc.), delivered lectures as adviser in Workshops and Training Schools and visited several countries (Japan, China, USA, Germany, Finland, Switzerland, Sweden, France, Italy, Greece) for presentation of the lectures and research materials, participation in workshops, research discussions, etc.

Institute Expert



Dr Chandra Sekhar is Professor in Civil Engineering at National Institute of Technology Warangal. He is an expert in the areas of water quality, waste treatment and environmental impact assessment. He is BoS Member, JNTU, Anantapur, Kakatiya University, Warangal and Governing Body Member for few Engineering Colleges. He is also Member for Expert Committee on Environmental Flows in Krishna – Godavari Rivers. He has lot of administrative experience as Registrar, NITW, Director (Academic), Institute for Electronic Governance, Govt of AP, Head, Training & placements, etc. He has coordinated several workshops, seminars, continuing education programs. Authored a text Book titled **Environmental Science**, which is prescribed text book in SV University, NIT, Kakatiya University, etc. He has number of publications to his credit. He was invited for **Research Discussions** at the University of Essen, **Germany** and Technical University of Vienna, **Austria**. Invited by UN to teach a course on Environmental Engg. at the **Prestina Summer Univ**. He was offered the prestigious Scholarship by the **Max Plank Institute, Hamburg**. He also received Scholarship from **DCAMM (Danish Center for Applied Mathematics and Mechanics)** International Graduate Research School, Denmark. He was invited for two **World Wide Water - Junior Environmental Scientists (WWW – JES) Workshops at Water University, Paris**. Awarded **Gold Medal and Memento** for Best Contribution as Team Leader in the **Janmabhoomi Programme** involving peoples' participation. He traveled widely across the globe on teaching, research and other consignments. The list includes Japan, Germany, USA, France, Netherlands, UK, Ireland, New Zealand, Australia, Kuwait, Denmark, Austria, Singapore, etc.

One week GIAN course

on

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19 – 23, November 2018

Course Coordinator

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