

About the Faculty

Prof. Peter Dietrich, GIAN Instructor



Prof. Dr. Peter Dietrich heads the Department of Monitoring and Exploration Technologies at Helmholtz Centre for Environmental Research (UFZ) in Leipzig and he is a Professor of Environmental and Engineering Geophysics at the University of Tübingen. His research focuses on Direct Push and hydrogeological measurement methods, Geophysics, On-site analytic processes, System analysis & Geotechnics, Environmental Sensor and Information Systems, Data Integration and Inversion among others. He earned his PhD at the Faculty of Geosciences, University of Tübingen and has been affiliated to Uni-Stuttgart, UC Berkley in different research positions. Prof. Dietrich has contributed in 150 journal articles and other publications. He has also authored a book and 14 book chapters.

More on Prof. Dietrich can be found at <https://www.ufz.de/index.php?de=37303>

Prof. R. Liedl, Additional Instructor



Prof. Dr. Rudolf Liedl has been leading the Institute for Groundwater Management (IGW) at TU Dresden, Dresden, Germany since 2006. At the Institute he and his research team addresses wide range of basic and application

questions on groundwater quantity and quality. Innovative methods are used in the laboratory, in the field and in computer simulations. The focus research topics at his institute are: flow and transport model development, mine water purification, stable isotope analysis, techniques, karst hydraulics, near-shore groundwater systems and artificial groundwater recharge. Prof. Liedl has contributed to over 100 publications to date. He is also actively involved in teaching groundwater hydrology and related courses at both UG and PG levels.

More on Prof. Liedl can be found at <https://tu-dresden.de/bu/umwelt/hydro/igw>

Workshop Modules and Plan

The contents of the workshop will include fundamentals required for addressing ground water, mostly quality, problems using both mathematical and field experimentations.

The lecture plan

Day	Hours	Type	Topic	Instructor
	1.5	L	Balancing between goal specification, modelling and site characterization efforts	Dietrich
1	1.5	L	Introduction to modelling	Dietrich/Liedl
	1.5	L	Introduction to site characterisation	Dietrich
2	1	T	Introduction to tutorial case studies	Dietrich
	4	L	Flow and transport modelling	Dietrich/Liedl
3	2	L	Geophysical methods	Dietrich
	2	L	Direct push methods	Dietrich
4	4	T	Case study: Accident of road tanker	Dietrich/Liedl
5	4	T	Case study: Industrial Megasite	Dietrich/Liedl

MODFLOW based models will be part of the workshop. Participant will have opportunities to explore relatively simple to complex models

Who Can Attend?

- Practising engineer/scientist/researcher from government/research organization, laboratories/consulting groups/industries working in areas related to groundwater quantity and quality issues.
- Students (UG/PG/PhD) and faculty from academic institutions interested in the fields of hydrogeology, earth-science, environmental science and engineering or civil



APPROACHES FOR CONTAMINATED SITE CHARACTERIZATION

Indian Institute of Technology Delhi (IITD)
New Delhi, India

Sept. 10 – Sept. 14, 2018

Overview

Successful management of contaminated sites requires a combined approach, which includes goal specification, modelling and site characterization. Within this framework, practitioners are interested in obtaining reliable predictions with acceptable uncertainties as a base for decisions. Thereby, financial and regulatory aspects of site investigation (as a prerequisite for model parameterization) and modelling on the one hand as well as of the consequences of decisions on the other significantly constrain the frame of possibilities. In the workshop practical approaches to handle these issues will be illustrated by:

1. **Prof. Peter Dietrich**, Uni. Tübingen & UFZ, Germany
2. **Prof. Rudolf Liedl**, Technical Uni. Dresden, Germany

The workshop will effectively present a sync between the formalization of groundwater contamination problem with the interplay of data requirements, to be obtained from site characterization, and mathematical modelling. For this, in the workshop modeling approaches and geophysical methods from a very bare fundamentals and up to the recent-most development will be presented. Subsequently, the usefulness and criticality of quality field-data and modeling methods will be explored with a goal of an efficient contaminated site management.

Implementations of field data and numerical methods will be discussed using simple to very complex case-studies.

Organizing Members/Contact points

Prof. B. R. Chahar



Prof. B.R. Chahar, is a Professor in the department of civil engineering at Indian Institute of technology Delhi. His research interests lies in areas of groundwater hydrology and canal designing. He earned his Ph.D. from IIT Roorkee and postgraduate from IIT Kharagpur. Prof. Chahar has more than two decades of

teaching experience, and more than 100 publications to his name. Professor Chahar has received various research grants from DST, MoWR, MoES and MoEF as well as fellowships from the ASCE. Apart from having authored 3 books, he also teaches various courses at both undergraduate and post graduate levels. More on Prof. Chahar can be found at <http://web.iitd.ac.in/~chahar/>

Dr. Prabhas. K. Yadav



Dr. P. K. Yadav is an Associate Prof. at Manipal University Jaipur and he is currently in deputation as a research associate at TU Dresden, Germany under Prof. Liedl and Prof. Dietrich. Dr. Yadav and Prof. Chahar is associated with in joint research works in Germany and IIT Delhi - jointly co-supervising several research works.

You can contact Dr. Yadav regarding course content at prabhasyadav@gmail.com

Ms. Sandhya Birla



Ms. Sandhya Birla is a research scholar at IIT Delhi. Her research is jointly supervised by Prof. Chahar, Prof. Liedl and Dr. Yadav. Her field of research is on development of mathematical models for transport problems. You can contact Ms. Sandhya Birla for registration and all other general information of the workshop at:

sandhya.birla@civil.iitd.ac.in
sandhyabirla.iitd@gmail.com
mobile: +91-82854 97834

Registration Procedure

Step 1: GIAN Web Portal Registration: Register in the GIAN portal <http://www.gian.iitkgp.ac.in/GREGN/index.>, by paying ₹. 500/- online. Registration to this portal is one time affair and will be valid for lifetime of GIAN. Please note that Course fee is separate.

Step 2: Course Registration: Login to the GIAN portal with the registered User ID and Password. Choose the Course registration option. Select the course titled “Balancing between goal specification, groundwater contamination modelling and subsurface characterization efforts” from the list and click the “Save” option. Confirm your registration by clicking the suitable option.

Last date for the registration: 31st August 2018

Step 3: Course Shortlisting: Candidates will be intimated through email regarding their selection.

Step 4: Course Fee Remittance: Once selected for the Course, the fee (as applicable) has to be paid. The course fee is as follows:

Students from other Academic Institutes: ₹. 5,000

Faculty from other Academic Institute: ₹10,000

Professionals (Industry/ Research) Org.: ₹. 15,000

Participants from abroad: US \$250

The above fee includes all instructional materials, computer use for tutorials and assignments, laboratory equipment usage charges. The participants will be provided with accommodation on payment basis.

The details of fee payment by Electronic Clearing Service/ RTGS in the name of “IITD CEP ACCOUNT”:

Bank Name	State Bank of India
Branch/Add.	IIT Delhi, Hauz Khas New Delhi-110016
IFS Code	SBIN0001077
MICR Code	110002156
Type of Account	Saving Account
Bank A/C No.	36819334799
SWIFT Code	SBININBB547
IITD PAN No.	AAATI0393L

Step 5: Send Registration Form to Course Coordinator:

Fill up the registration form by providing details of the completed bank transaction and include other required information. Please send the registration form to the Course coordinator at sandhya.birla@civil.iitd.ac.in or sandhyabirla.iitd@gmail.com on or before 31st August 2018.

Total Number of Participants = 40

REGISTRATION FORM

GIAN Course on

Balancing between goal specification, groundwater contamination modelling and subsurface characterization efforts (10th - 14th September, 2018)

Name: _____

Designation: _____

Organization: _____

Address: _____

E-mail: _____

Phone: _____

Mobile: _____

Fax: _____

Fees Payable to “IITD CEP ACCOUNT”, SBI IIT DELHI

Transaction No.: _____

Dated: _____

Bank Name: _____

Amount (₹): _____

Signature of Applicant