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For more Information

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NATIONAL WORKSHOP ON MICROBIAL DIVERSITY: EXPLORATION & PERSPECTIVES

(May 3rd – May 12th 2012)



ORGANISED BY:
DEPARTMENT OF ENVIRONMENTAL SCIENCE &
RADHAKRISHNAN FUND
MAHARSHI DAYANAND UNIVERSITY
ROHTAK-124001
HARYANA

ABOUT THE DEPARTMENT

The Department of Biosciences initially conferring postgraduate degree in M.Sc. Botany, Zoology came into existence in 1984 but from 1991 the department is conferring M.Sc. degree in Botany, Zoology, Biochemistry, Environmental Science, Biotechnology and Genetics. In 2005 the stream of Biotechnology got status of a separate department and subsequently in the next session Department of Biochemistry & Genetics came into existence. In July 2009 the Department of Biosciences was also trifurcated in three independent departments namely Department of Environmental Sciences, Botany & Zoology. Department of Environmental Sciences has started a new P.G. course in M.Sc. Environmental Biotechnology in 2010. At present Department of Environmental Sciences is running two P.G. courses i.e. M.Sc. (Environmental Sciences) and M.Sc. (Environmental Biotechnology) and doctoral programme. . Department has been shifted in a new Bioscience Building from May, 2011 where one complete floor is allotted to the Department of Environmental Sciences. Recently Department in collaboration with Ministry of Earth Sciences has installed Sky radiometer and an Air Monitoring Station in collaboration with Haryana Pollution Control Board.

ABOUT THE WORKSHOP

Microbes are microscopic, unicellular or multicellular organisms that are everywhere in the environment, including in the soil, air, in and on our bodies and in extreme environments like hot springs. They can be good or bad: Some make us sick, others help us digest food; still others are used for decomposing and recycling nutrients at a global scale. They also are a valuable resource of novel metabolic abilities useful for pharmaceuticals and industrial processes.

How complex are these communities and how are they changing? Because of the difficulty in studying so many organisms, community fingerprinting techniques, essentially looking at the problem at a much lower resolution can be used to monitor bacterial complexity, the relative abundance and dynamics of these microscopic communities at a landscape level in the real world.

"Microbial organisms are much more diverse than we ever imagined. We are just beginning to understand how vast that diversity might be."

- **Selection Procedure:** The candidates would be selected on first cum first serve basis.
- **Number of seats:** 20
- **Methodology:** Lectures, discussions and hands on practical training.
- **Certificate:** On the successful completion of the course Certificate of Participation will be issued.
- **Last Date of Registration:** The registration form may be submitted latest by May 1, 2012.
- **Registration Fees:** Rs. 1500/- (Course fee includes only programme fee and course material; Boarding/lodging and travel charges to be borne by the candidate)

PROGRAMME

Day 1: Thursday, May 03, 2012

9.00- 10.00	Registration
10.00- 10.30	Inauguration of Workshop
10.30-11.30	Theme of the workshop by Prof. V. K. Jain, Vice Chancellor Doon University, Dehradun
11.30-12.00	Tea Break
12.00-1.00	Invited Lecture by Prof. Rup Lal, Department of Zoology, University of Delhi , New Delhi
1.00-2.30	Lunch
2.30-3.30	Invited Lecture by Prof. Suneel Khanna, Dean Planning & Faculty Affairs NIIT University, Neemrana, Rajasthan.

Day 2: Friday, May 04, 2012

09:00-12:30	Laboratory – Practical Applications: ➤ Isolation of microorganisms from soil and water.
12:30-1:30	Lunch
1:30- 5:00	Laboratory – Practical Applications: ➤ Isolation of microbes from soil & water.

Day 3: Saturday, May 05, 2012

09:00-12:30	Laboratory – Practical Applications: ➤ Isolation of DNA from the bacteria and fungi.
12:30-1:30	Lunch
1:30-5:00	Laboratory – Practical Applications: ➤ Isolation of DNA from the bacteria and fungi.

Day 4: Sunday, May 06, 2012

Day 5: Monday, May 07, 2012

09:00-12:30	Laboratory – Practical Applications: ➤ Purification and Quantification of Nucleic acids.
12:30-1:30	Lunch
1:30-5:00	Laboratory – Practical Applications: ➤ Separation of Proteins by PAGE.

Day 6: Tuesday, May 08, 2012

09:00-12:30	Laboratory – Practical Applications: ➤ Polymerase chain reaction
12:30-1:30	Lunch
1:30-5:00	Laboratory – Practical Applications: ➤ Gel Electrophoresis of PCR product

Day 7: Wednesday, May 09, 2012

09:00-12:30	Laboratory – Practical Applications: ➤ Transformation of bacteria
12:30-1:30	Lunch
1:30-5:00	Laboratory – Practical Applications: ➤ Transformation of bacteria

Day8: Thursday, May 10, 2012

09:00-12:30	Laboratory – Practical Applications: ➤ Screening of Trans formants
12:30-1:30	Lunch
1:30-5:00	Laboratory – Practical Applications: ➤ Phylogenetic analysis

Day9: Friday, May 11, 2012

09:00-12:30	Laboratory – Practical Applications: ➤ Plasmid Isolation from Trans formants
12:30-1:30	Lunch
1:30-5:00	Laboratory – Practical Applications: ➤ Restriction digestion of Plasmid

Day10: Saturday, May 12, 2012

09:00-12:30	Laboratory – Practical Applications: ➤ Cell Flow Cytometry
12:30-1:30	Lunch
2:00-3:00	Valedictory and Certificate Distribution

National Workshop

ON

(May 3rd – May 12th 2012)

Registration Form

Please complete this form and return it as an e-mail attachment to dhankhar.r@rediffmail.com
by 1st May 2012

1. Name
2. Designation:
3. Organization:
4. Address:
5. E--mail:
6. Tel No: Fax No:
7. Do you want to avail Accommodation facility for the training programme: Yes/No
(Limited accommodation can be provided if requested in advance)
8. If Yes then please provide the time for the accommodation required:

Date:

Signature of applicant