

INTERNATIONAL WORKSHOPS



GLOBAL INITIATIVE OF ACADEMIC NETWORKS



Organized By

PANJAB UNIVERSITY

Under the aegis of





Panjab University
Chandigarh

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GLOBAL INITIATIVE OF ACADEMIC NETWORKS

PU GIAN
Workshop
No. 2



MINISTRY OF
HUMAN RESOURCE DEVELOPMENT, GOVT. OF INDIA



National Coordinating Institute
INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

www.gian.iitkgp.ac.in

INTERNATIONAL WORKSHOP

on

"Heterogeneous Catalysis and Applications"

'An event under'



सत्यमेव जयते

GiAN

Global Initiative of Academic Networks



August 01-05, 2016

Venue:

**Seminar Hall, Department of SAIF/CIL
Panjab University, Chandigarh**

Organized by:

Panjab University, Chandigarh

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Workshop Overview

Total number of participants: 51

Sr. No.	Name of the Institute	Number of participants
1	Panjab University	33
2	SVNIT, Surat	3
3	Thapar University, Patiala	3
4	BBAU, Lucknow	2
5	PTU, Jalandhar	1
6	NIT, Jalandhar	1
7	NIPER, Mohali	1
8	IIT, Patna	1
9	GNDU, Amritsar	1
10	Lingaya's University, Faridabad	1
11	DCRUST, Murthal	1
12	GJUST, Hisar	1
13	BCET, Gurdaspur	1
14	GGSC, Chandigarh	1

INTERNATIONAL WORKSHOP

ON

**"Heterogeneous Catalysis
and Applications"**

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Day-1-5 Overview of Workshop **Global Initiative of Academic Network**

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Guest Faculty

Prof. Alex Ibhaddon
Departments of Chemical
Engineering & Chemistry
The University of Hul
United Kingdom



Course coordinator GIAN

Prof. Sushil K. Kansal
Dr S. S. Bhatnagar University Institute
of Chemical Engg. & Technology
Panjab University, Chandigarh





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Day-1: Inauguration **Global Initiative of Academic Network**

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Day-1-5 Overview of Workshop
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HETEROGENEOUS CATALYSIS AND APPLICATIONS



Prof. Dr. Alex Ibhaddon

**Departments of Chemical Engineering and Chemistry
The University of Hull, United Kingdom HU6 7RX**

Module A

Heterogeneous catalysis, state of the art and novel concepts, material properties and design considerations (Novel Reactor Concepts)

Lecture 1: Homogeneous, Heterogeneous catalytic processes – introduction, scope, applications and constraints.



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Lecture 2: Novel hybrid materials for heterogeneous catalysis-beyond the state of the art

Lecture 3: Design, Synthesis and Characterization of heterogeneous catalyst materials.

Lecture 4: Discussion of the various types of heterogeneous catalyst materials and metal support interactions in heterogeneous catalyst materials

Lecture 5: Heterogeneous Catalytic Reactors – State of the art

Lecture 6: Heterogeneous Catalytic Reactors – Beyond state of the art

Lecture 7: Smart Reactors, Heterogeneous Catalysis and new ‘Process Windows’

Tutorial





Module B

Heterogeneous Catalysis in the Fine Chemicals Industry/ Wastewater treatment

Lecture 8: Application of heterogeneous catalyst materials in the synthesis of vitamins

Lecture 9: Application of heterogeneous catalyst materials in the synthesis of fragrances, flavors and carotenoids.

Lecture 10: Application of heterogeneous catalyst materials in the synthesis of drugs and pharmaceuticals.

Lecture 11: Application of heterogeneous catalyst in environmental remediation, meeting clean energy demands and wastewater treatment.

Lecture 12: On-line Processing, Parallelization and Heterogeneous Catalysis.



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Day-1-5 Overview of Workshop **Global Initiative of Academic Network**

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Day-7: Valedictory Function **Global Initiative of Academic Network**

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Day-5: Last Day Group Photograph **Global Initiative of Academic Network**

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Day-1-5 Overview of Workshop **Global Initiative of Academic Network**



S/No	Course Title	Foreign Faculty Affiliation	Country	Duration
1.	Amphiphilic Molecules and Self-Assembly: Principles and Applications	Prof. Dr. Michael Gradzielski, Technische universitat Berlin.	Germany	March 22-28, 2016
2.	Heterogeneous, Catalysis and Applications	Prof. Dr. Alex Ibadon, Department of Chemical Engineering and Chemistry, University of Hull	United Kingdom	August 1-5, 2016
3.	Novel and Nanostructured Drug Delivery for Diverse Biomedical Applications	Prof. Mandip S. Sachdeva, Florida A&M University	United States of America	October 24-28, 2016
4.	Process Safety and Risk Engineering	Prof. Dr. Faisal Irshad Khan, Faculty of Engineering and applied Science , Memorial University	Canada	November 14-19, 2016
5.	Receptor- based Drug Discovery	Dr. Karl-Norbert Klotz, University of Wurzburg	Germany	November 21-28, 2016
6.	Advanced lithium batteries science and technology	Dr. Christian M. Julien, Sorbonne University, Univ. Pierre and Marie Curie	France	December 12-17, 2016
7.	Innovative Organic Chemistry for New	Dr. Robert H. Dodd.	France	June 21-22, 2016
8.	Biomechatronics: Principles and techniques in rehabilitation	Prof. Ravi Vaidyanathan, Imperial college of London, Department of Mechanical Engineering	United Kingdom	December 18-24, 2016



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Thank You

Lessons we learned
Experience we gained