Department Of Chemical Engineering

ALIGARH
MUSLIM
UNIVERSITY

2012-13

Inside

- IICHE-Scholarship
- Student Placement
- GATE Achievement
- E-Corner
- Students' Achievement
Message From The Chairman

It gives me great pleasure that the annual NEWSLETTER of the Department of Chemical Engineering is being presented by the B.Tech. students. The innovative ideas of the students will be significant in mentioning about the activities of the department and the chemical engineering world in a lucrative way. Moreover, this endeavor will enable them to hone their team-work skills. This work should include the essential information pertaining to the achievements of students of the department, in particular their participation in various Conferences/Workshops and selection for scholarships along with a brief description of the applications of Chemical Engineering. This endeavor would also give the students a chance to enhance their creative skills academically. I hope that the readers would benefit from the newsletter and gain an insight into the activities of the Department of Chemical Engineering.

I wish all the concerned a great success.

September, 2013
Dr. Sattar Hussain
Professor and Chairman
IICHE- Golden Jubilee Scholarship

Indian Institute Of Chemical Engineers is a confluence of streams of professionals from academia, research institute and industry. It provides them the appropriate forum for joint endeavors, hand-in-hand, to work for human being through application of chemical engineering and allied sciences. If you are interested about, attached to or involved in chemical engineering related activities – whether as a student as a seasoned professional - you shall find the programme of IICHE immensely beneficial, opening up doors of new possibilities and existing possibilities

IICHE also gives scholarship to the students. This is The Golden Jubilee Scholarship. This scholarship is given to the students on the basis of their merit. This scholarship is given to 15 students who have been selected all over India. This time 4 students of B.Tech from A.M.U. were selected for the scholarship.

The Golden Jubilee Scholarship cheques of Rs. 15,000/- each & certificates were distributed during the 39th AGM held on 5th September, 2012 to the following students for the year 2012-2013 :-

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Student’s Name</th>
<th>Class &amp; Year</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Nusrat Parveen</td>
<td>M.Tech</td>
</tr>
<tr>
<td>2</td>
<td>Vikrant Varshney</td>
<td>B.Tech(IV Year)</td>
</tr>
<tr>
<td>3</td>
<td>Shadman Hasan Khan</td>
<td>B.Tech(IV Year)</td>
</tr>
<tr>
<td>4</td>
<td>Shashank Sharma</td>
<td>B.Tech(III Year)</td>
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Petrotech 2012

Professor Sattar Husain, Chairman, Department of Chemical Engineering, Aligarh Muslim University, along with his team members Dr. Syed Akhlaq Ahmad, Associate Professor, Department of Chemical Engineering and Ms. Bhavna Gupta, Ms. Maham Malik and Mr. Syed M. Raza Quadri, final year students of Department of Chemical Engineering, participated in the biennial conference of Petrotech Society, Petrotech-2012, 10th International Oil and Gas Conference and Exhibition held at India Habitat Centre, New Delhi.

Petrotech-2012 attracted 356 exhibitors and more than 4000 delegates from 50 countries. The Petrotech was organized on the theme of ‘Hydrocarbon and Beyond: Changing Landscape’ to raise the quality of debate and enable answers that actually work in transforming the way our society consumes energy.
Workshop Held at Chemical Engineering Department

During the academic year two National Symposia were held in the Chemical Engineering Department, ZHCET. The first was titled “Nanotechnology for Chemical Applications” held on February 27, 2013 in collaboration with the “Centre of Excellence in Material Science (Nanomaterial)”, Department of Applied Physics, ZHCET and witnessed erudite Prof. Andriaus Manz from Germany as a keynote speaker. Another was a national workshop on “Process Modelling & Simulation” held on March 23, 2013 which witnessed a large gathering from the Engineering College and saw Prof. Bikash Mohanty from IIT Roorkee speaking on the key aspects of Simulation. The lectures were held under the TEQIP-II Programme and boosted the morale of the Engineering students in particular. The intermingling of various Professors from around the country was appreciated by all.
Rio+20 Short term study course

The United Nations Conference on Sustainable Development (UNCSD) – nicknamed Rio+20 – took place in Rio de Janeiro, Brazil in June 2012. It was attended by 193 countries. The aim was to create a safer, more equitable, cleaner, greener and more prosperous world.

Indian Astrobiology Research Centre (IARC), Mumbai is spearheading has committed to UNCSD to take the Rio+20 message of Sustainable Development to One Million Indians especially school & college students by February 2013.

Rio+20 India Certification Program is a short term course study available for students in schools & colleges in India.

UNCSD Rio+20 India Program. IARC

Achievement in ‘GATE’: Six students qualified GATE

The Graduate Aptitude Test in Engineering (GATE) is an all-India examination that primarily tests the comprehensive understanding of various undergraduate subjects in engineering and science. GATE is conducted jointly by the Indian Institute of Science and seven Indian Institutes of Technology (IIT Bombay, IIT Delhi, IIT Guwahati, IIT Kanpur, IIT Kharagpur, IIT Madras and IIT Roorkee) on behalf of the National Coordination Board – GATE, Department of Higher Education, Ministry of Human Resources Development (MHRD), Government of India.

In year 2012-13 GATE is conducted ONLINE for the first time and six students of Department of Chemical Engineering have been qualified GATE.

<table>
<thead>
<tr>
<th>Student’s Name</th>
<th>Rank(AIR) in GATE-2013</th>
<th>Score in GATE-2013</th>
</tr>
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<tbody>
<tr>
<td>Mohd. Zaved</td>
<td>691</td>
<td></td>
</tr>
<tr>
<td>Shadab Alam</td>
<td>949</td>
<td>476</td>
</tr>
<tr>
<td>Wasim Khan</td>
<td>1625</td>
<td>312</td>
</tr>
<tr>
<td>Md. Danish Eqbal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shadman Hasan Khan</td>
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Narora Atomic Power Plant visit

The students of department of Chemical Engineering visited Narora Atomic Power Plant under the guidance of their teachers Mr. M. Abdul Hakeem, Mr. Naseem Ahmad Khan and Ms. Aishatul Bushra. It was a great experience for all the students. They got the realistic view of all the machines used in power plant and learned how those machines work. The students visited Model room, alternator rom and the Reactor Control Room which helped them to understand more clearly the functionality of the Atomic power plant.

Farewell Party

Farewell party for the department of chemical engineering was held on 14th feb’ 2011 at seminar hall of their department. Student were very excited and had fun while celebrating their farewell party.

Students’ Placement
Many students got selection in different companies. The students got selection in TCS and VALDEL.

The following students were selected in TCS:

1. Priyanshi Saraswat
2. Sidra Sanaullah Khan
3. Md. Shadab Alam
4. Md. Danish

One student got selection in VALDEL. This was an off-Campus selection in Noida. There were two phases for selection: written test and then the interview. The name of the student selected was: Amir Khan.

**E-Corner**

1. **Chem. Engg. Updates (ZHCET)**

   This is a group on Facebook. The main aim of this group is to keep the teachers and the students updated about the latest news related to the chemical industry. Currently there are 160 members in this group.

2. **www.msubbu.in**
This website provides lecture notes, question bank, solved problems, online tutorials and previous years GATE papers that is useful for students for the preparation of various competitive exams.

Useful Chemical Engineering Applications:

There are many applications related to chemical engineering. These applications are mainly designed to run on android platform. Some of these applications are:

1. **Process Engineering Tools LITE**

Lite version of "Process Engineering Tools" contains the following calculators:

1) Air cooler (NOW FOR FREE!);
2) Control valve (liquids) (AVAILABLE ONLY IN FULL VERSION);
3) Flow through orifice (AVAILABLE ONLY IN FULL VERSION);
4) Flash steam (AVAILABLE ONLY IN FULL VERSION);
5) Gas compressor;
6) Gas Properties (AVAILABLE ONLY IN FULL VERSION);
7) Gas turbine (AVAILABLE ONLY IN FULL VERSION);
8) Heat exchanger simulator (AVAILABLE ONLY IN FULL VERSION);
9) Packed tower (AVAILABLE ONLY IN FULL VERSION);
10) Pressure drop (AVAILABLE ONLY IN FULL VERSION);
11) Pump;
12) Simulators: selection of thermodynamic package (NOW FOR FREE!);
13) Steam ejector (AVAILABLE ONLY IN FULL VERSION);
14) Steam turbine (AVAILABLE ONLY IN FULL VERSION);
15) Unit converter
2. Chemical Engineer Dictionary

This Application has the features:
More than 12000 words.
User can search Offline.
User can keep track of the previous searched words.

3. Chemical Engineering World

Chemical Engineering World CEW, the Official Organ of CHEMTECH Foundation, is India’s premier technology magazine for the chemical process industry professionals. This highly reputed monthly publication provides novel insights into the dynamics of Indian and global process industries.

Achievements of Students

<table>
<thead>
<tr>
<th>NAME OF THE STUDENT(s)</th>
<th>ACHIEVEMENT(s)</th>
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| **Syed Mohamid Raza Qadri** | - Research Intern at Interfacial Electrochemistry Lab, Department of Chemical Engineering & Applied Chemistry, University of Toronto, Canada  
- Among 10 students selected globally for student delegation of 2012 World Heavy Oil Congress, Aberdeen, UK by World Petroleum Council-2013 Youth Forum Committee.  
- International Program Developer for International Student Energy Summit 2013, Trondheim, Norway |
| --- | --- |
| **Md. Danish Iqbal**  
**Mohd. Moiz Khan**  
**Mohd. Yusuf** | - Paper titled “Preparation of Biodiesel from Waste frying oil and checking the different feasibility of blends of biodiesel with Petro diesel “ published in International Journal of Applied Engineering Research, Vol. 8, ISSN No.0973-4562 |
| **Mohammad Atif Aleem** | - Participated at Rhodes International Youth Forum, Greece - 2013 |
| **Ahmad Tabish** | - Selected as Research Intern, University of Queensland, Australia - 2013 |
| **Salman Bin Kashif**  
**Mohammad Atif Aleem** | - Paper titled “Municipal Water and Sewage Treatment” published in conference proceedings, International Conference on Global Scenario in Environment and Energy (ICGSEE)2013 at MANIT Bhopal |
| **Salman Bin Kashif**  
**Arpit Garg**  
**Prakhar Agarwal**  
**Shairoz Khan** | - Poster titled “Application of Polymer/Flyash Composites in affordable Housing/Construction” Published in conference proceeding, 4th International Conference on recent advances in Composite Materials 2012 at International Centre Goa by IIT-BHU |
| **Shashank Sharma** | - Selected as Research Intern, IIT Delhi (Among 22 students from India) - 2013 |
| **Priyanshi Saraswat**  
**Fatima Ahmad**  
**Sidra Sanaullah Khan**  
**Bhavna Gupta** | - Paper titled “Nanotube Technology For Carbon Dioxide as a Fuel “ Published in NERD Magazine, IIT Kanpur - 2011 |
| **Salman Bin Kashif** | ➢ IInd Prize, Quiz, Hydrology Department, Cognizance 2012, IIT Roorkee |
| **Mohammad Atif Aleem** | ➢ IIIrd Prize, Debate, Peace Summit, IIT Delhi - 2013 |

**Prepared and Edited by:**

Vikrant Varshney