

### REGISTRATION FORM

Name of the participants: \_\_\_\_\_

Institution \_\_\_\_\_

Address for Correspondence :

Phone/Cell Number : \_\_\_\_\_

E-mail : \_\_\_\_\_

I would like to participate in

(Put a "X" mark in appropriate place)

Papyrus:

Chimera:

Tech Quizzana:

*(A student can participate in a maximum of two events)*

Signature of \_\_\_\_\_ Signature of the Participant  
Head of the Dept./Head of the Inst.

**Note :** *Students are advised to carry their valid identity card and a bonafide certificate from the respective educational institutes*

To download the registration form please visit [www.giet.edu](http://www.giet.edu)



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HOD, Chemical Engg.

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Mr. G.K.Mohanty  
Mr. Sandeep K Babu

### Student Office-bearers

Mr. Suman Dev, Co-ordinator  
Miss S. Adhikary, Co-Cordinator  
Miss P. Laha  
Mr. Ajay Barik  
Mr. Ravi Ranjan



AN ISTE SPONSORED NATIONAL LEVEL STUDENTS' SEMINAR

On

CHEMICAL ENGINEERING IN 21<sup>st</sup> CENTURY – ISSUES & CHALLENGES

# Alkemy-2K10

## October 30-31<sup>st</sup> 2010



Organized by

Chemical Engineering Students' Association (CESA)  
Department of Chemical Engineering  
Gandhi Institute of Engineering & Technology

(Approved by AICTE, Govt of Orissa & affiliated to BPUT, Rourkela)  
GUNUPUR – 765022, Dist. Rayagada, Orissa, India  
[www.giet.edu](http://www.giet.edu)



## THE INSTITUTE

Gandhi Institute of Engineering and Technology was established in the year 1997 with an intake of 200 students in four branches with a motto of providing quality engineering education in a highly disciplined environment. In less than a decade, it has become a citadel of engineering education in Eastern India. In the journey, it is ISO 9001:2000 certified and NBA and NAAC accredited. It has been regarded as a Gurukul by the students, alumni, faculty members and all distinguished visitors for its learning environment, faculty members, infrastructure and other facilities. It has obtained approval for admission of foreign nationals and Persons of Indian Origin (PIO's).

The college offers B.Tech courses in Computer Science and Engineering, Information Technology, Electronics and Communication Engineering, Applied Electronics and Instrumentation Engineering, Electrical and Electronics Engineering, Mechanical Engineering, Electrical Engineering, Chemical Engineering, Metallurgical Engineering, Civil Engineering and Biotechnology. All the programmes are approved by AICTE and State Govt. of Orissa. It is affiliated to Biju Patnaik Institute of Technology. The college has consistently excelled in academic, placement and extracurricular activities.



## THE DEPARTMENT

The Department of Chemical Engineering imparts four year B Tech degree course in Chemical Engineering affiliated to Biju Patnaik University of Technology. The course is designed by the university, and aimed at making the students well-versed with the basics and the recent trends of Chemical Engineering.



## CHEMICAL ENGINEERING STUDENTS ASSOCIATION (CESA) PRESENTS

### Alkemy-2K10

#### A TWO – DAY ISTE SPONSORED NATIONAL SEMINAR ON CHEMICAL ENGINEERING IN 21<sup>st</sup> CENTURY-ISSUES and CHALLENGES

#### Events

- Papyrus
- Chimera
- Tech Quizzana

#### Call for Papyrus

Authors (Students only) are requested to send their papers in soft copy (through e-mail) to the President/Vice President, CESA.

All papers should be submitted in MS Word format only. Format & paper size: A4 (8.5' × 11'), font type: Arial, font size: 14, 12, and 10 (main heading, sub heading, and text), line spacing: single.

Only LCD will be provided for presentation of papers. A maximum of two students are allowed for presentation of a single paper.

#### Theme

- Separation Technique
- Industrial Pollution Control
- Unit Operations
- Chemical Reaction Engg.
- Process Dynamics & Control

#### Call for Chimera

#### Problem Statement:

Design and construct an economical Heat Exchanger which takes out maximum heat from a hot fluid.

#### Game Rules:

- Heat Exchanger should be semi-batch, i.e. a continuous flow of cold water will be provided but the hot water will be filled in the beginning. Care should be taken that the hot and cold fluids don't mix.
- A mechanism should be provided to fill the hot water and withdraw it at the end of the process. Care should be taken that the difference in mass of hot water added and the mass recovered at the end of the process should not exceed 25 grams. Exceeding the limit will lead to disqualification of the team.
- Teams will be provided with 1.5 Kg of hot water. Funnel will be provided for the purpose of filling the hot fluid into the exchanger. Bore of funnel used will be 1/2".
- Tap water will be provided as the source of cold water; volumetric flow rate will be kept constant during the entire run for all teams.
- No trial runs will be allowed around the venue of competition.
- Any machine found unsafe in any way would be disqualified.

- Run will be for a period of 3 minutes, for each team.
- A maximum of 3 members are allowed in a group.

#### Machine Specifications:

- Your machine should fit into a box of 30cm\*30cm\*40cm.
- The entire machine cannot be moved during the run. It must be operated while kept on the table.
- The machine should not contain any chemical (in any physical state) that can react/interact with hot water.
- The machine must be sealed properly so that no liquid leaks out during competition. Machine should have provision for entry and exit of cold water, and for entry and exit of hot fluid. The hot fluid exit shall only be used only at the end of the process to withdraw hot water for measurement purposes. Water supply will be provided through a pipe of diameter 1/2".
- The machine should not be operated manually after pouring the hot water in it. 30 seconds will be given for the outlet of hot water.

#### Judging Criteria

Initial and final temperature of hot fluid will be measured; mass of hot fluid in the heat exchanger will be measured. Team with maximum temperature drop for hot fluid will be the winner. In case tie between two teams, the teams will have to rerun their exchangers for a lesser time. Innovation & optimization of the model is to be taken into account.

#### Call for Tech Quizzana

A technical quiz competition will be held among the student groups.

#### Game Rules:

- A maximum of two students are allowed in a group.
- The first round will be a written test. After written test, 5 groups will be selected on the basis of marks obtained in the test.
- Among the final 5 groups, a buzzer round will be conducted.

#### Registration Fee

Rs 100/- (Per Student) \*Payment must be made in cash at Registration Desk. \*No TA is admissible. \*Free board and lodging will be provided.

#### Dates to Remember

Submission of full paper:	: 7th Oct 2010
Intimation of acceptance of paper:	: 10th Oct 2010
Registration for Chimera	: 7th Oct 2010

#### Cash Prize

**Papyrus**  
1st prize: Rs 1000/-  
2nd prize: Rs 500/-  
3rd prize: Rs 300/-

#### Caimera

1st prize: Rs 1200/-  
2nd prize: Rs 800/-  
Tech Quizzana  
1st prize: Rs 500/-  
2nd prize: Rs 300/-  
3rd prize: Rs 200/-

#### Mailing Address

All Correspondences including submission should be addressed to  
**Prof Y K Mohanty**  
President CESA

Or

**Prof K Mahalik**  
Vice President CESA  
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