

Indian Institute of Metals

Kanpur Chapter

Annual Report (2011-2012)

by

Dr. Kantesh Balani
Secretary, IIM Kanpur Chapter

Date: April 14, 2012

INDIAN INSTITUTE OF METALS KANPUR CHAPTER

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Dear Members of the IIM Kanpur Chapter and Friends,

The year 2011-12 was special particularly as our chapter strength increased and IIM Kanpur Chapter has bagged “*Best Chapter for Overall Performance during 2010-11*” in the Medium chapter category during NMD-ATM 2012. I take this opportunity to welcome the new student members, who have adorned “Student Affiliate Chapter” of IIM Kanpur.

It gives me immense pleasure to present before you the Annual Report of the Kanpur Chapter of The Indian Institute of Metals during the annual general body meeting (AGM) of IIM Kanpur chapter being organized on Apr. 14, 2012.

The current council took over in May 2011, and during the last one year we have organized several activities including a series of technical talks, assisted successful conduct of:

- i) **Nano-Biomaterial CHAMPS (Characterization, Hierarchy, Advanced Material Processing and Surfaces)**, during Apr. 25-29th, 2011.
- ii) **N.K. Batra Metals and Materials Quiz** for local schools on Aug. 21, 2011
- iii) Lectures by the IIT Kanpur Faculties of Institute of Engineering and Technology to CSJM University, Kanpur B.Tech students

I am very pleased to mention that IIM Kanpur chapter has been trying hard in last one year in its drive to increase the membership. This has been largely possible because of the participation of the undergraduate students of Institute of Engineering and Technology, CSJM University, Kanpur.

EXECUTIVE COMMITTEE

In the last Annual General Body meeting of IIM Kanpur Chapter (held on Apr. 23, 2011), the following members were elected for the executive committee of the Kanpur Chapter of The Indian Institute of Metals for the year 2011-2012:

Dr. Anish Upadhyaya	Chairman (& Council Member)
Dr. Kallol Mondal	Co-chairperson
Dr. Kantesh Balani	Secretary
Dr. Krishanu Biswas	Treasurer
Dr. Shashank Shekhar	Member
Dr. Vivek Verma	Member
Dr. Gouthama	Member
(HOD, MSE)	Member (Ex-Officio)

LIST OF SEMINARS held at IIM Kanpur chapter in 2011-12 FY
MSE Departmental Talks

During the last financial year, the following technical talks were delivered under the joint auspices of the Kanpur Chapter of the IIM and the Department of Materials Science Engineering (MSE), IIT Kanpur.

S. No.	Date	Title	Speaker
1	Oct. 10, 2011	Plasma Spray Processing: Process Map Development, Single Splat Morphology and Coating Evaluation at High Temperature Wear	Dr. Anup Keshri , Vellore Institute of Technology, Vellore Tamilnadu –632014, India
2	Oct. 12, 2011	<i>Magnetic Nanoparticles for Biomedical Applications</i>	Dr. Dipak Maity Research Fellow, National University of Singapore
3	Oct. 17, 2011	Graphene and its siblings: a theoretical study	Dr. Somnath Bhowmick Mechanical Engineering and Materials Science, Rice University, Houston, TX, USA
4	Oct. 18, 2011	Synthesis of Thin films and Synthesis and Nanocrystals via Materials Chemistry routes	Dr. Anirban Chowdhury Research Associate, Materials Engineering, Indian Institute of Science, Bangalore
5	Nov. 1, 2011	Mg-based nanomaterials for on-board vehicular hydrogen storage applications	Dr. Sankara Sarma V Tatiparti Research Scientist, General Motors Bangalore
6	Nov. 4, 2011	Novel ultrafine and glass-matrix composites with improved plasticity	Dr. Jayanta Das Indian Institute of Technology Kharagpur, West Bengal 721302
7	Dec. 15, 2011	Glass Seal for Energy Conversion Devices	Dr. Manoj Kumar Mahapatra Postdoctoral fellow, Center for Clean Energy Engineering in University of Connecticut, USA
8	Jan. 4, 2012	Engineered Bioceramics for Next Generation Implants	Dr. Mangal Roy Assistant Research Professor, School of Mechanical and Materials Engg. Washington State University, USA
9	Mar. 30, 2012	Texture evolution during phase transformation in low-alloyed ULC steels sheets	Dr. Jaiprakash Gautam Post Doctoral researcher, Materials Innovation Institute, Technical University Delft, Netherlands

Meetings Organized

A total of 11 (eleven) official executive committees were organized, with other meetings involving sub-committees and the working at local level are not mentioned. Event organization, planning and execution were discussed in detail. As well as feedback from various ex-officio members was also taken into consideration for the event planning.

1. Meeting: Mar. 21, 2012

Meeting Start: 5:00 pm

Agenda:

- 1) Planning Annual GBM (Date finalization & logistics):
- 2) Identifying speaker for the GBM:
- 3) Annual report preparation:
- 4) Account/balance details:
- 5) Nomination of office bearers for new term 2012-13:
- 6) Any other item:
→ Prof. Vivek Verma is the new advisor of student affiliate chapter

Meeting End: 6:10 pm

2. Meeting: Jan. 9, 2012 (5 pm FB 421)

Meeting Start: 5:00 pm

Agenda:

- (i) Welcoming Dr. Shashank Shekhar as the new Advisor of IIM Student Affiliate Kanpur chapter
- (ii) Chapters Meet on Feb. 4 2012 in Delhi
- (iii) Account updates and budget allocation
- (iv) Event Planning
→ 2-3 events to be organized by student affiliate chapter. Also need to decide the prizes to be given to winners.
→ Can organize: essay competition, design competition, oral presentation, communication skill workshop.
- (v) Any other item
→ IIM website to be updated:

Meeting End: 6 pm

3. Meeting: Nov. 8, 2011 (5:00 pm FB 421)

Meeting Start: 5:05 pm

Agenda:

- a. Attendance in the IIM Annual meeting:
- b. Student event to be planned in CSJM university/ IITK campus:
- c. IIM Kanpur chapter website update:
- d. Any other item

1. Budgeting
2. Advisor of the student affiliate chapter.
3. An email to be sent to mmeug/mmepg for becoming members of IIM Kanpur chapter.

Meeting end: 5:45 pm.

4. Sept. 26, 2011: (5 pm in FB 421)

- i) Discussing the activities of Year 2011-12
- ii) Letter to IIM Headquarters regarding Membership Drive of IIM Kanpur Chapter

5. Aug. 17, 5 pm, FB 421

- (i) Finalization of N.K. Batra Quiz questions and arrangements

6. Aug. 5 (Friday) at 4:30 pm in FB 421

- (i) IIM NK Batra Quiz (Flow of program + Questions Bank and rounds)

7. Aug. 4 (Thursday) at 4 pm in FB 421

- (i) Discuss the questions/rounds set up by Shashank and Shobit

8. Jul 4, 2011 at 5 pm in FB 421

- (i) Regarding NK Batra quiz. Prepared of questions

9. Meeting: Jun. 21, 2011 (10 am, FB 421)

Agenda:

- 1) IIM N.K. Batra Quiz: Speaker, dates and program scheduling:
Aug. 21st 2011 (Need to check the availability)
Speaker: Prof. Kallol Mondal (Need to get the title of talk)
- 2) Request for catering expenses through Head, MSE
- 3) Council meeting on Jul. 28, 2011
- 4) Involving students in IIM N.K. Batra Quiz (questions, volunteers)

Others:

Cash Prizes: Rs. 1500, 1000 and 750 respectively for I, II and III position.
Shashank Shekhar and Shobit Omar to do anchoring of show (upon their consent).

Tanmoy Maiti, Sarang Ingole, and Kantesh Balani to organize.

Certificates/ catering/ collecting rolling-trophy to be managed.

10. Apr. 23, 2011, 6:00 pm (PBCEC)

Agenda:

- 1) Annual General Body Meeting
- 2) Annual Report reading
- 3) Launching IIM Kanpur chapter website
- 4) Financial auditing of accounts: Year 2010-11 in GBM

11. Apr. 19, 2011, 5:00 pm (FB 421)

Agenda:

- 1) Discussing the execution of Annual General Body Meeting
- 2) Preparing the Annual Report for any modification/ changes
- 3) Elocution contest report at CSJM University

A Report on “METALS & MATERIALS QUIZ 2011”

I would like to bring to your attention to **Prof. N. K. Batra Memorial Materials Quiz – 2011** organized by the Department of Materials Science and Engineering, IIT Kanpur and IIM Kanpur chapter on Aug. 21, 2011. The event started with welcome remarks by **Prof. Dipak Mazumdar**, Head, Dept. of Materials Science and Engineering, at 9 am on Aug. 21, 2011 (Sunday) in L-17 (Lecture Hall 17), Indian Institute of Technology, Kanpur.

This is the *twelfth time* in a row that the metals and materials quiz has been organized at IIT Kanpur. **Profs. Shashank Shekhar** and **Shobit Omar**, Dept. of Materials Science and Engineering, IIT Kanpur, hosted the quiz. This year, altogether *20 teams from 12 different schools/inter colleges* from in and around Kanpur participated in the competition. This year, it was a pleasure to listen to scintillating talk by **Prof. Kallol Mondal**, Department of Materials Science and Engineering, IIT Kanpur, on the topic “*The World of Phase Transformation*”.

Following an initial elimination round of crossword, eight teams were short-listed for the semi-final round. Secondary elimination dropped four teams and the rest four competed in the final rounds. The team comprising *Anmol Sachdeva* and *Pawan Dudeja* from **Delhi Public School** was declared as the **winner**. The winning team was awarded Prof. **NK Batra Memorial Rolling Trophy** by *Professor Dipak Mazumdar*, Head, Dept. of Materials Science and Engineering, IIT Kanpur. The team from *U.P. Kirana Seva Samiti Vidyalaya* comprising of *Yogesh Shukla* and *Paritosh Misra* were the *runner up*.

The winner- **Delhi Public School** and runner-up *U.P. Kirana Seva Samiti Vidyalaya* will now participate in the National level Prof. Brahm Prakash Memorial Quiz competition to be held at the Indira Gandhi Center for Atomic Research (IGCAR), Kalpakkam (Tamilnadu) on September 17, 2011. The concluding vote of thanks was delivered by **Prof. Krishanu Biswas**, Department of Materials Science and Engineering, IIT Kanpur.



Prof. N.K. Batra Memorial Team (Aug. 21, 2011) ... A Grand Success



Welcome by Prof. Dipak Mazumdar, Head, Materials Science and Engineering, IIT Kanpur.



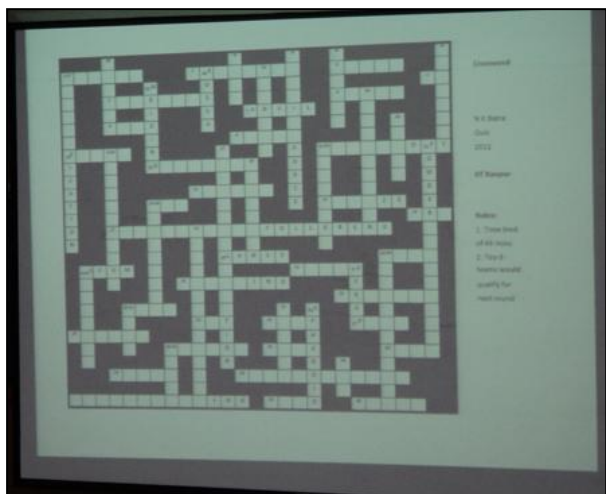
Introductory slide welcoming the delegates of Prof. N.K. Batra Memorial Quiz



Registration of schools for the N.K. Batra Quiz started at 8:30 am on Aug. 21, 2011.



A view of gathering for the Prof. N.K. Batra Memorial Quiz



Crosswords round for selection of eight teams from 20 participating teams.



Transformation made easy by Prof. Kallol Mondal through his talk “The World of Phase Transformation”.



Profs. Shashank Shekhar and Shobit Omar hosting the quiz (showing a student enact during dumb charade).



Students participating in the other rounds of Prof. N.K. Batra memorial quiz. Audience can be seen at the back rows.



It is Delhi Public School that made winning the Prof. N.K. Batra Memorial rolling trophy! Trophy was presented by Prof. Dipak Mazumdar, Head, Dept. Materials Science and Engg., IIT Kanpur.

A Report on



Nano-Biomaterial CHAMPS (Characterization, Hierarchy, Advanced Material Processing and Surfaces) Workshop

Apr. 25-29th, 2011

Organized by:



Profs. Kantesh Balani & Bikramjit Basu

(Laboratory of Biomaterials, Materials Science and Engineering, *IIT Kanpur*)

&

Prof. Roger Narayan

(Joint Department of Biomedical Engineering, *University of North Carolina/ North Carolina State University*)

Supported by:

Office of Naval Research Global
Indian Institute of Metals Kanpur Chapter
Material Advantage at IIT Kanpur






May 24, 2011

Summary of Nano-Bio CHAMPS workshop




Recent efforts have focused on the development of nanostructured materials for use in prostheses, implantable biosensors, and other medical applications. Recent advances in the development and use of nanostructured materials for medical applications have taken place due to two complementary forces: (i) evolution from use of microstructured materials to use of nanostructured materials as novel processing and characterization techniques become available, and (ii) nanostructured materials participate in interactions with small-scale biological molecules, including antigen–antibody interactions and signal transduction. The workshop activities have advanced interactions involving nanostructured biomaterials in particular.

A QIP WORKSHOP
ON
Nano-Biomaterial CHAMPS
(Characterization, Hierarchy, Advanced Material Processing and Surfaces)
Apr. 25-29th, 2011



Venue
PBCEC Conference Room, Visitors Hostel
IIT Kanpur, Kanpur-208016

Supported by:
Centre for Development of Technical Education
Office of Naval Research Global
Indian Institute of Metals Kanpur Chapter
Material Advantage at IIT Kanpur



Banner of the Nano-Biomaterial CHAMPS workshop

The lecture sessions were broken up by break session interactions, in which case studies involving scientific, engineering, and commercialization efforts relevant to nanostructured biomedical materials were discussed. Heterogeneous small groups, containing students, staff, and faculty members addressed current topics in nanobiotechnology in an informal setting. Break session topics included: (1) processing and characterization of biomaterials, (2) biological processes and biocompatibility, (3) applications of biomaterials, and (4) nanobiotechnology-based device design strategies and protocols.

- Prof. Roger Narayan, University of North Carolina and North Carolina State University, Email: roger_narayan@msn.com
- Prof. Bikramjit Basu, Indian Institute of Technology Kanpur, Email: bikram@iitk.ac.in
- Prof. Vivek Verma, Indian Institute of Technology Kanpur, Email: vverma@iitk.ac.in
- Prof. Krishanu Biswas, Indian Institute of Technology Kanpur , Email: kbiswas@iitk.ac.in
- Prof. Dharendra Katti, Indian Institute of Technology Kanpur , Email: dsk@iitk.ac.in
- Prof. Kantesh Balani, Indian Institute of Technology Kanpur , Email: kbalani@iitk.ac.in
- Prof. Amit K. Dinda MD,PhD All Indian Institute of Medical Sciences, (AIIMS), Delhi, Email: amit_dinda@yahoo.com
- Prof. Alok Dhawan, Indian Institute of Toxicological Research, Lucknow, Email: alokdhawan@iitr.res.in
- Prof. Rishi Shanker, Indian Institute of Toxicological Research, Lucknow, Email: rishi@iitr.res.in
- Dr. Arvind Sinha, NML, Jamshedpur, Email: arvind@nmlindia.org

A list of Speakers in the Nano-Biomaterial CHAMPS workshop

We envision that numerous research activities, including joint US-Indian research projects and student exchanges, will be generated by this workshop. In addition, we anticipate that this program will generate significant positive publicity; modern technology solutions to important health problems commonly get regional, national, and international coverage. As a sponsor of this new program, the *Office of Naval Research-Global* and its affiliates will benefit from *Nano-Biomaterial CHAMPS (Characterization, Hierarchy, Advanced Material Processing and Surfaces)* workshop because its success has been added to their long list of achievements.

Highlights

Various researches gathered from all the corners of India (such as Vellore, Lucknow, Delhi, Roorkee, Bangalore, Jamshedpur, etc) at IIT Kanpur during Nano-Biomaterial CHAMPS (Characterization, Hierarchy, Advanced Material Processing and Surfaces) workshop during Apr. 25-29, 2011. The participation was tremendously engrossing as participants interacted with the speakers during their talks, informal sessions and laboratory visits.

Participants utilized the Visitors' Hostel and hostel guest house at the Indian Institute of Technology Kanpur for food and lodging during the workshop. This modern two-story building is located near the center of the Indian Institute of Technology Kanpur campus. The Visitors' Hostel has fifty-five air conditioned guest rooms, which contain attached bathrooms. Some hostel amenities include wireless internet, color television, and in-room refrigerator. In addition, the hostel contains two air-conditioned dining facilities.

Dr. Gabriel Roy graced the conference, and briefly introduced the programs supported by Office of Naval Research. In addition, fascinating projects that are supported by ONR were also described by Dr. Roy.



A few participants enjoying campus greenery with Dr. Gabriel Roy (from ONRG).

It was a perturbing factor that Prof. Roger Narayan's flight got cancelled at the last minute and was getting a replacement flight couple of days later. By that he would have missed participating in the workshop. But, then a webcom (an online) talk was arranged where workshop participants could interact with Prof. Narayan (live) while he was delivering his lecture!



Participants listening to Prof. Roger Narayan (UNC, NCSU) via webcom.

The development of biomaterials has traditionally evolved in a slow manner; however, many advances have been made in the development of nanomaterials for prostheses and other medical devices over the past decade. We have only begun to understand the interactions between nanostructured materials and biological tissues. The proposed workshop and coursework has provided significant, meaningful benefit to the Indian scientific workforce by exposing researchers, educators, staff, and students to an emerging technological area.

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A report on “lectures by the IIT Kanpur Faculties at Institute of Engineering and Technology, CSJM University, Kanpur”

The initiative of delivering lectures was continued where faculty members from the Materials Science and Engineering, IIT Kanpur, have delivered lectures on certain topics which were chosen by the students of UIET, CSJM Kanpur. This was definitely an excellent program under IIM Kanpur Chapter because this is a very good interface between the IIM and students of materials science and engineering. We are sure that there will be a great interests being developed in the bachelor students of materials engineering towards IIM by seeing the kind of overwhelming response from the students of UIET, CSJM Kanpur.

1. Prof. Anish Upadhyaya talked on “Powder Metallurgy”: April 2, 2011 (Saturday)

This lecture incepted the basics of particulate joining, densification and grain coarsening during sintering of material. Intriguing concepts of surface tension and the gravitational forces affecting the microstructure were fascinating and conveyed the fundamentals of microstructural evolution in W-Cu system.



Attendees during Prof. A. Upadhyaya's lecture

Student Views on the Fundamental Lecture Series to CSJM Students

Subject: Feed back for IIM lectures

From: "SHUBHRA Bajpai" <shubhrabajpai@gmail.com>

Date: Wed, April 6, 2011 6:50 pm

To: kbalani@iitk.ac.in ([more](#))

Priority: Normal

Options: [View Full Header](#) | [View Printable Version](#) | [Download this as a file](#) | [Add to Addressbook](#)
| [View Message details](#)

Respected Sirs,

First of all I thank you all for arranging & delivering lectures for us. Though it's difficult to give feedback on the lectures taken one year before still I can recall those lectures because well delivered & understood. I find that the lectures taken by you all were really helpful not only in terms of explaining the underlying complex phenomenon of X-ray & electrons but also from its applicability point of view in our branch. Lectures were quite informative and completely cover the topic. Topics chosen were very fundamental and helped us to form our basics in material characterization. Though I feel that there was much time difference between the lectures delivered (this can be reduced in future). Also classes were on material characterization so it must be followed by demonstration of instruments. We heartily appreciate this initiative from IIM Kanpur chapter and think that different series of lectures should continue so that student can be able to build up their basics and get a feeling of what really going on in material science and metallurgical Engg. as a B.Tech level student.

Sincerely,

Shubhra Bajpai , B.tech (UIET)

Trainee Scientist

Institute of minerals & Materials Technology

Bhubaneswar

(Edited Version)

Subject: Re: IIM chapter
From: "sachin mishra" <sachinmishra351@gmail.com>
Date: Wed, April 6, 2011 11:42 am
To: "Kantesh Balani" <kbalani@iitk.ac.in>
Priority: Normal
Options: [View Full Header](#) | [View Printable Version](#) | [Download this as a file](#) | [Add to Addressbook](#)
| [View Message details](#)

Respected Sir,

In the last one year I have attended IIM lecture series by Dr Anish Upadhyaya, Dr Kantesh Balani, Dr Bikramjit Basu, Amartya Muktopadhyaya and couple of more on various topics like Powder Metallurgy, SEM, XRD techniques. All the topics were relevant as per my syllabus and definitely enhanced the understanding of the topics and their applications both simple and advanced application. Amartya's presentation gave an idea of how to approach the research work.

Yours Sincerely,
Sachin Mishra

2. Prof. Kantesh Balani, “Develop a Leader in You”:Sept. 10, 2011

A leadership lecture on the topic “*Develop a Leader in You*” was presented by Dr. Kantesh Balani on Sept. 10, 2011. Since many of the attendees were also non-members, this lecture followed with informal discussion on the benefits of Material Advantage student membership in developing the network.



Dr. Kantesh Balani delivering the lecture on "Develop a Leader in You" on Sept. 10, 2011.

Feedback on earlier (XRD, SEM, EDS, neutron diffraction) IIM lectures:

The first lecture that we had attended was presented by Dr. B Basu on X-ray diffraction and crystal structure analysis. In this lecture the way he explained the process of formation of XRD pattern and the manner in which such patterns can be used to determine crystallographic properties of a material such as lattice parameter, crystallinity of materials, elemental analysis, structural analysis was very clear and interesting.

In the lecture by Dr. Kantesh Balani on SEM, EDS and WDS, we became familiar with the applications of SEM for certain special cases such as fracture surface analysis. We gained knowledge about the working of detector, images obtained from various types of electrons and the differences between optical microscope and SEM. The concept of electron and neutron diffraction was also explained by Dr. Balani in his second lecture. He gave a vivid explanation of diffraction process of electrons.

In the lecture presented by Amartya Mukhopadhyaya we came to know how the fracture toughness and flexural strength of nanocomposites increases with increasing MWCNT content up to 10 wt%. The mechanism of crack bridging responsible for the increase in strength had been explained clearly.

Contributed by: (i) Pramanshu Trivedi, (ii) Rachit Sarin and (iii) Priya Asthana

A note by Family of Dept. of Materials Science and Metallurgical Engineering, UIET, CSJM University

It had been a great opportunity for us to be a part of the special student oriented seminars/lectures, organized by the IIM Kanpur Chapter for C.S.J.M.U. students.

A lot of theoretical aspects and concepts which we have gone through in our course were made clear through presentations delivered by faculty from IIT-K under the banner of IIM, Kanpur Chapter.

I would like to mention some moments which created a deep impact on our knowledge of different subjects. Such a case was that of the lecture on the diffusion in solids which was presented by Dr. S. Ingole of the department of Materials Science & Engineering (MSE), IIT Kanpur. The way he described the movement/diffusion of an atom in a solid with reference to that of a frog jump created a lively experience of the phenomenon.

Another vibrant experience had been with Dr. Anish Upadhyaya's lecture on powder metallurgy. He explained how the properties of a material can be enhanced with limited use of resources and also giving due consideration to the economic aspects.

The point of interest in his lecture was that how can we use to agglomerate a huge amount of particles (powder metallurgical principles). A material/object to a single with defined dimension and also how to make it possible to keep the size of the material upto the desired level. While decreasing the overall volume it was fantastic of the formation of a spherical ball in an atmosphere free of gravity.

To conclude with, I would like to extend my regards on behalf of all the students of Materials Science & Metallurgical Engineering, UIET, CSJM University, Kanpur to the council members of IIM Kanpur Chapter providing such a platform where we can understand and appreciate the modern trends, challenges and innovations in our field.

A Report on the “Elocution Contest” Organized at CSJM University on Apr. 19, 2011

Various topics were provided to students to speak about, from philosophical (There is a plenty of space at the bottom), to the serious ones (Brittle ceramics are tough nuts to crack), or as confusing and unclear as (It is crystal clear that not all crystals are clear!).

More than 30 students participated and it was a great experience hearing them all. Some stated hilarious instances, whereas some stood firmly on technical grounds. Some fumbled at their English, whereas some mesmerized the audience with their flair. All in all, this event was a high success and the prizes of following will be given during Annual General Body Meeting:

1. First Place with cash prize of Rs. 1000/-
2. Second Place with cash prize of Rs. 750/-
3. Third Place with cash prize of Rs. 500/-



A view of students during the elocution contest

Techkriti 2012 (Jan. 27-30, 2012)

This regular event organized during Jan. 27-30, 2012 by student body of Indian Institute of Kanpur witnessed participation from the IIM Kanpur Chapter showcasing the coating processing and 3-D printing. The booth set up by students of IIM Kanpur Chapter is presented here.



IIM Kanpur Chapter Student members showcasing electrostatic spraying and 3-D printing to the visitors Jan 27-30, 2012.

REPORT ON “USE OF MATERIAL IN MOVIES” A DEBATE COMPETITION : Feb. 19, 2012

This event was being organized by IIM Kanpur chapter. The aim of this debate was to discover new perspectives to utilize the knowledge and wisdom of material science/ metallurgical engineering for future developments. This debate was inspired from mind boggling exquisite exhibitions of marvels from the world of materials Science and metallurgical engineering in movie scripts. The debate focuses towards and revolves around the cutting edge technologies and probabilities of development of potential materials for special purposes. About the topic: About the topic: We are continuously watching the Hollywood/ Bollywood movies based on Science Fiction like Iron Man, Star Wars, Real Steel, Wall E, The Terminator, The Core, Transformers, A.I. Artificial Intelligence etc. All these movies dream about special kinds of materials that show excellent strength, hardness and fracture toughness. Common examples are shape memory alloys, materials for extreme.

This quiz was held on 19th feb 2012 .In this event so many students of IIT Kanpur an CSJM University participated ,and presented their technical as well as innovative ideas about the development and exclusive applications of materials .The quiz was divided into two rounds and students got registered as a team of three members each .The quiz became very interested due to the presence of some IIT faculty members and they also given their view for the debate.

In the debate the speaker of the event was Dr. Kallol Mondal and judges were Dr. Shashank Shekhar , Dr. Gauthma and Dr. Kallol Mondal.

In the final round, the team from UIET, CSJM University , represented by Akansha Mohan ,Vasundhara Singh and Prasun Agnihotri was declared the **winner**. The winning team was awarded by a memorable gift by Dr. Shashank Shekhar. The team from IIT Kanpur comprising of Kaushik Sikdar,Sumit Ranjan and Vishal sachdev was **runner up**.

The following are some memorable pictures of the event :



(a) Registration



(b) Participation



(c) Participation



(d) Winners

A REPORT ON “TECHBRAINS-12” AN ELLOCUTION CUM DEBATE QUIZ: Mar. 24, 2012

This event was being organized by IIM Kanpur chapter .This event was inspired from the incidents where quick and technical answers are preferred. The event was divided into two rounds .So many teams from CSJM University and IIT Kanpur participated out of which four teams qualified for the final round. Some Ph.D. students Neha , Indu and Somitro were the judges for the first round .While the second round was judged by Dr. K.Balani and Dr.S.Shekhar ,faculty at IIT Kanpur. The event was well organized by Alok and Pramanshu .

In the final round the team from IIT Kanpur ,represented by Sumit, Kaushik and Pradyut declared the winner. The winning team was awarded with a memorable gift by Dr. S.Shekhar. While for the runner up two teams comprising of Pradeep Kumar, Yogendra Pratap and Maihar Madhav from CSJMU and Bipin , Gaurav and Agnish from IIT Kanpur were tied for second place.

The following are some memorable photos of the event -



a) Group Photo



(b)Photo with winners




(c)Winners

A Report on “new website for IIM Local Chapter <http://www.iitk.ac.in/mse/IIM/>”

This is recent addition to the activities of the IIM Kanpur Chapter. We have developed the website for our local chapter and this can be browsed by a greater number of people across the globe. This provides important information of the chapter's activities. It covers the basic information required, and this website will soon be linked with IIM Headquarter at its main site.

A preview of the IIM Kanpur Chapter Website



Indian Institute of Metals

Kanpur Chapter

[HOME](#)
[NEWS/ UPCOMING EVENTS](#)
[MEETINGS](#)
[ARCHIVE](#)
[MEMBERSHIP](#)
[CONTACT US](#)

IIM Kanpur Chapter received "Best Chapter Award for Overall Performance during 2010-11" Among Medium Chapters

IIM Kanpur Chapter received "Best Chapter Award for Overall Performance during 2009-10" Among Small Chapters

[Click Here for the Award Plaque](#)

Welcome Message by Chairman, IIM Kanpur Chapter

Dear Members of the IIM Kanpur Chapter and Friends,

At the outset, I take this opportunity to welcome all members and particularly, new student members to the newly created website of IIM Kanpur chapter. Over the years, IIM Kanpur chapter has increased its activities for the benefit of the IIM members and particularly for the student community. This website provides a glimpse of our past and present activities.

IIM Kanpur chapter regularly participates in IIM council activities and organized NMD-ATM in the year 1999. IIM Kanpur chapter in collaboration with Department of Materials Science and Engineering organized several international conferences/workshops, including Metallo in 2007, Processing, Characterization, and Properties of Advanced Engineering Materials in 2010, etc.

One of the regular activities of the chapter is to organize "Metals and Materials Quiz" for local school students. Some of the most recent activities are as follows, a) organizing technical talks, b) "Refresher course for the Industry professionals", c) "popular lectures at local schools" and d) Organising lectures on fundamental topics as well as on emerging research areas for the student members of CSJM University.

I am very proud to announce that several of our members received "Young Metallurgist" and "Metallurgist of the Year" award from Ministry of Steels, Government of India. As recognition of the contribution of our chapter, IIM Kanpur chapter recently received the "Best Chapter award" in the medium chapter category during NMD-ATM at Hyderabad on 14th November, 2011.

Finally, I am very pleased to mention that IIM Kanpur chapter has been very successful in last several years in its drive to increase the membership. This has been largely possible because of the participation of the undergraduate students of Institute of Engineering and Technology, CSJM University, Kanpur. In this context, I am sure that this website will be helpful for accessing all relevant information and

About Us

Indian Institute of Metals (IIM) Kanpur Chapter is being supported by the Department of Materials Science and Engineering, Indian Institute of Technology Kanpur and the Department of Materials Science and Metallurgical Engineering, U.I.E.T, C.S.J.M. University, Kanpur. The aim of IIM Kanpur Chapter is to promote Materials Science and Engineering education and encouraging the podium of Materials Science and Engineering awareness in the society.

IIM Kanpur chapter routinely organizes Materials Quiz (during Aug. every year), and reaches schools and colleges delivering several talks relating materials to everyday life. IIM Kanpur chapter activities also include organizing workshops and conferences, involving student-faculty interaction, and understanding lecture series for clearing the flaws in the conceptual understanding.

Executive Committee of IIM Kanpur Chapter

	Chairman Prof. Anish Upadhyaya Email: anishu@iitk.ac.in Ph: +91-512-259-7771		Secretary Prof. Kantesh Balani Email: kbalani@iitk.ac.in Ph: +91-512-259-6194
	Vice Chairman Prof. Kallol Mondal Email: kallol@iitk.ac.in Ph: +91-512-259-6156		Treasurer Prof. Krishanu Biswas Email: kbbiswas@iitk.ac.in Ph: +91-512-259-6184
	Member Prof. Gouthama Email: gouthama@iitk.ac.in Ph: +91-512-259-6527		Member Prof. Vivek Verma Email: verma@iitk.ac.in Ph: +91-512-259-6527
	Member Prof. Shashank Shekhar Email: shashank@iitk.ac.in Ph: +91-512-259-6528		Ex-Officio Prof. Sandeep Sangal (Head, MSE) Email: sangal@iitk.ac.in Ph: +91-512-259-7167
	Student Officer Mr. Alok Kumar Email: alokn@iitk.ac.in		Student Officer Mr. Pramanshu Trivedi Email: prishucool@gmail.com

CHAPTER NEWS

Awards won by chapter:

“Best Chapter for Overall Performance during 2010-11” in the Medium Chapter category by IIM Headquarters.

Other Individual Awards:

- [1] **S.P. Mehrotra**, Honorary Membership IIM, 2011.
- [2] **Ashish Garg**, Endeavour Research Fellowship Award (Australian Government), 2011
- [3] **B. Basu**, Materials Research Society of India (MRSI) Medal, 2011.
- [4] **B. Basu**, Delivered the prestigious ASET Colloquium at Tata Institute for Fundamental Research (TIFR), Mumbai in January, 2012
- [5] **Monica Katiyer** SBI Chair Professor
- [6] **B. Basu**, Member, International committee on “Thresholds in Engineering Student Learning”, an initiative taken up by University of Western Australia, University of Oxford, University of Birmingham, Linkoping University, Sweden and Denmark Technological University.
- [7] **B. Basu**, Member, Project Advisory Committee /review panel, Development of Glass & Ceramic Technology, Technology Development Programme, Department of Science and Technology, Government of India, 2011-
- [8] **B. Basu**, Member, Technology Vision – 2035: Materials and Manufacturing, TIFAC, DST, Government of India, 2011.
- [9] **B. Basu**, International Advisory Committee member, Slovenian Academy of Engineers meeting (Slavnostna akademija in mednarodna konferenca inženirjev strojništva), Ljubljana, 29-30th November, 2011
- [10] **Kantesh Balani** received “2012 TMS Materials Processing & Manufacturing Division Young Leader Professional Development Award” during TMS 2012 Annual Meeting Mar. 11-15, 2012 at Orlando, FL, USA.
- [11] **Kantesh Balani** was awarded Materials Science and Engineering C Young Researcher Award 2011 by Elsevier for exceptional research efforts involving materials for biological applications on Nov. 29, 2011, Boston, USA.
- [12] **V. Verma**, : Received Shri Ram Arora Award (2011). The award is given to outstanding materials scientist below the age of 30 years. The award was presented at TMS annual meeting 2011 in San Diego (California, USA)

5. NEW COUNCIL OF THE IIM KANPUR CHAPTER

The IIM members of the Kanpur Chapter will be electing a new council of the executive for the year 2012-2013 during this general body meeting. As per the recommendation of the head-office, election is being conducted every year, but it was suggested by council that for effective performance, the tenure of the executive committee should be of two years.

I have been the Secretary of the chapter since 2010 (second term ends Apr. 14, 2012). I am confident that under the leadership of the new council members, IIM Kanpur Chapter will attain new heights. To this end, I am happy to achieve the target of involving active participation of both the undergraduate and postgraduate students of Department of Materials Science and Engineering, IIT-Kanpur as well as students of Materials Science Department, UIET, Kanpur University. This has been evidenced with chapter receiving the *Best Chapter* in the medium chapter category. To this end, the interaction with DMSRDE scientists, Kanpur, would be highly critical. In addition, we are also planning for small workshops, which may be highly relevant towards the industry. Also, we need to organize more programmes involving the participation of the student community. In the past, attempts were made to demonstrate the school students some interesting experiments, related to basic principles/applications of materials. I hope that such exercise will be performed more frequently in the coming year. In the above context, the IIM local chapter requires your suggestions and active interest.

During the Techriti 2012 event, the last year's idea of organizing 'open house' for school students has been fulfilled. This year, it has been planned to involve school students of class XI and XII, and arrange their visit to various laboratory facilities of IIT Kanpur. It is hoped that new council members of IIM Kanpur chapter will organize a grand 'open house' during 2012-2013.

At last, I must mention that I have been immensely helped by the executive committee members, departmental colleagues and students in organizing as well as participating in the various activities of the local chapter throughout the past year. I wish to take this opportunity to place on record my sincere thanks to all of them.

Thank you all for your participation in IIM Kanpur Chapter activities and I do hope that our activities will grow in the days to come!

Kantesh Balani
Secretary, IIM Kanpur Chapter
April 14th, 2012