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# INDIAN INSTITUTE OF METALS KANPUR CHAPTER

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## Annual Report (2007-2008)

by

**Dr. Bikramjit Basu**  
Secretary, 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 this meeting. It also gives me immense pleasure to present before you the Annual Report of the Kanpur Chapter of The Indian Institute of Metals.

The current council took over in May 2007 and during the last one year, we have organized several activities including a series of technical talks, the 'Metals and Materials Quiz' for local schools as well as a major international conference. In the last one year, we were also successful to increase the membership of the local chapter and this has been possible because of the participation of the undergraduate students of Institute of Engineering and Technology, CSJM University, Kanpur. However, I must emphasize here that we still need to increase the membership to a great extent in the days to come. On behalf of the local chapter, I will appreciate your efforts towards aiming this goal.

### **EXECUTIVE COMMITTEE**

In the last Annual General Body meeting of IIM Kanpur Chapter (held on 8<sup>th</sup> May, 2007), the following members were elected for the executive committee of the Kanpur Chapter of The Indian Institute of Metals for the year 2007-2008:

Prof. Dipak Mazumdar	Chairman (& Council Member)
Prof. A. Upadhyaya	Vice-Chairman
Dr. B. Basu	Secretary
Dr. Gouthama	Treasurer
Mr. Milan Raj Sahu	Member
Dr. Pritha Choudhury	Member
(HOD, MME)	Member (Ex-Officio)

From January 2008 onwards, two new young faculty members of Department of Materials and Metallurgical Engineering, IIT Kanpur, Dr. Krishanu Biswas and Dr. Kallol Mandal were invited to the Executive Council of IIM Kanpur Chapter as special invitees.

## TECHNICAL 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 & Metallurgical Engineering, IIT Kanpur.

<b>Sl.No.</b>	<b>Date</b>	<b>Speaker</b>	<b>Title of Talk</b>
1)*	08.05.2007	Dr. P. P. Sinha Vikram Sarabhai Space Center, Trivandrum	<b>Development of Maraging Steels: From Lab to Launch</b>
2)**	10.05.2007	Dr. Prabhakar M. Gadre Orthopedic surgeon, Kanpur	<b>Biomaterials and Orthopedic surgery</b>
2)	20.06.2007	Prof. Mitjan Kalin University of Ljubljana, Slovenia	<b>A new concept for boundary lubrication of ceramics with water</b>
3)***	19.08.2007	Prof. R. Balasubramaniam IIT Kanpur	<b>Marvels of Indian Iron through Ages</b>
4)	15.11.2007	Prof. Amit Bandyopadhyay Washington State University, USA	<b>Load bearing implants using Laser Engineering Net Shaping (LENS)</b>
5)	04.02.2008	Prof. Rajendra K. Bordia, University of Washington, USA	<b>Polymer derived Nanostructured composite ceramics</b>
6)	08.02.2008	Prof. Hasan Mandal Anadolu University, Turkey	<b>Composite sialons for cutting tool applications</b>
7)	12.02.2008	Dr. R.P. Das HydroMet Proc, Bhubaneswar	<b>Generating Wealth from Metal Bearing Wastes</b>
8)****	14.02.2008	Dr. R.P. Das HydroMet Proc, Bhubaneswar	<b>Hydrometallurgy for Environment</b>
9)	15.02.2008	Dr. R.P. Das HydroMet Proc, Bhubaneswar	<b>Hydrometallurgy for Environment</b>
10)****	01.03.2008	Prof. Anish Upadhyaya IIT Kanpur	<b>Process cost optimization through sintering time optimization</b>

\* (All talks except #1 were held in FB 421, except \* was held at the Pioneer Batch Conference Room, VH, IIT Kanpur, \*\* was held at Pioneer batch Auditorium, IIT Kanpur; \*\*\* was held in L-7, IIT Kanpur and \*\*\*\* was held at IET, CSJM University, Kanpur).

## **METALS & MATERIALS QUIZ 2007**

The Indian Institute of Metals, Kanpur Chapter and the Department of Materials & Metallurgical Engineering, IIT Kanpur jointly organized the Metals & Materials Quiz 2007 on 19.08.2007 at the Outreach Auditorium. This is the eighth time in a row that the metals and materials quiz has been organized at IIT Kanpur. This year, altogether 17 teams from 15 different schools/inter colleges from in and around Kanpur participated in the competition. Following an initial elimination round, six teams were short-listed for the final rounds. In the final round, the team from **Sir Padampat Singhania School**, represented by Pratyush Rawal and Mayank Valecha was declared the **winner**. This is the fourth time in a row that Sir Padampat Singhania School has been the winner of N. K. Batra Metals & Materials Quiz. The winning team was awarded cash prize by Prof. R C Sharma, Professor of Department of Materials and Metallurgical Engineering. The team from UP Kirana Seva Samilti Vidyalaya comprising of Achin Mittal and Asshish Anand was first runner up, while the team from Dr. Virendra Swarup Education Centre, Avadhपुरi, represented by Bhanu Pratap Singh and Vibhor Bajpai was second runner up. The team from Sir Padampath Singhania School participated 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 October 6, 2007. You will be pleased to note that Mayank Valecha, a student of **Sir Padampat Singhania School** won second prize Essay-cum-Elocution contest at Kalpakkam and he received a Trophy and Nerolac sponsored prize of Rs. 5,000/-. It has always been a practice to invite some eminent academician/researcher from R & D Labs/ persons from industries to deliver a talk during the quiz competition. It was also our pleasure to listen to Prof. R. Balasubramaniam, Department of Materials and Metallurgical Engineering, IIT Kanpur, who delivered a talk, entitled “**Marvels of Indian Iron through the Ages**”.

## **INTERNATIONAL CONFERENCE ON METALS AND ALLOYS: Past, Present and Future (METALLO 2007)**

A four day international conference on the theme of metals and alloys, METALLO 2007, was organized by the Department of Materials and Metallurgical Engineering, IIT Kanpur and the Kanpur Chapter of the Indian Institute of Metals. The main theme of focus of the conference was the past, present and future of metals and alloys and their applications in diverse engineering fields. The conference showcased the latest global trends in metals and alloys research, education and industry. The conference was held at the newly-built Outreach Centre at IIT Kanpur, from the seventh to the tenth of December, 2007. The conference honored Professor T.R. Anantharaman, a doyen of Indian Metallurgy, whose eightieth birthday was celebrated in the year 2007. The conference was supported by the organizations in which Professor Anantharaman was closely associated: Indian Institute of Science, Bangalore; Banaras Hindu University, Varanasi; Thapar University, Patiala and National Physical Laboratory, New Delhi.

The chief guest of the Inauguration Function was Dr. T. Ramasami, Secretary to the Government of India, Department of Science and Technology. Dr. Ramasami delivered a scintillating lecture on “An insight into the world of metals and alloys”. Immediately after, the distinguished guests inaugurated the exhibition stalls, the poster session and a full-scale fiber-reinforced plastic replica of the Delhi Iron Pillar. On this occasion, Dr. Ramasami also released a book entitled “Professor T.R. Anantharaman: An Inspiring and Dedicated Educator” authored by R. Balasubramaniam, Anish Upadhyaya, Bikramjit Basu and Deepika Sachdeva and published by Aryan Books International, New Delhi, 2007 (Hardbound, ISBN 81-86787-14-3).

## CHAPTER NEWS

It is heartening to note that at least 7 BTech students of IET, CSJM University have become student members of IIM Kanpur chapter. This is probably after many years that we have increased membership outside IIT Kanpur. R. Balasubramaniam, Professor, Department of Materials and Metallurgical Engineering, IIT Kanpur recently adapted "**Callister's Materials Science and Engineering**" textbook for Indian students and this book was published by Wiley India in May 2007. In addition, he has authored two art-paper books, namely "**Marvels of Indian Iron through Ages**" published by Rupa and Co, and "The Saga of Indian Cannons" published by Aryan Books International in this year. Profs. G S Upadhyay and Anish Upadhyay wrote a book entitled "**Materials Science and Engineering**", published by Viva Books Pvt. Ltd., New Delhi and Anshan, UK. Prof. Bikramjit Basu has recently been selected to receive the prestigious **Coble Award** for Young Scholars of the American Ceramic Society and he has been invited to receive this Award in person at the Annual meeting of the American Ceramic Society on October 6, 2008 in Pittsburgh, USA. Prof. Brahma Deo, a member of IIM Kanpur chapter and currently Dean, Faculty Affairs, IIT Kanpur, has recently been bestowed upon the "**Distinguished Alumnus Award**" of the Metallurgy Department, Banaras Hindu University.

## 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 2008-2009 during this general body meeting. It was decided in the previous executive committee meeting (held on 15<sup>th</sup> April, 2008) that for effective performance, the tenure of the council should be of two years instead of one. However, the head-office insisted that we have the election year, even if the same council has to continue.

I have been the Secretary of the chapter for the last two years. I am confident that under the leadership of the new council members, IIM Kanpur Chapter will attain new heights. To this end, I recommend that we should strongly involve the participation of both the undergraduate and postgraduate students of Department of Materials and Metallurgical Engineering, IIT-Kanpur as well as students of Materials Science Department, IET, Kanpur University. We also have to evolve some planning of how to increase interests towards chapter activity among scientists of DMSRDE as well as engineers/technical personnel from industries around Kanpur, Lucknow and neighboring areas. To this end, the interaction with DMSRDE scientists would be critical. In addition, we may need to plan 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.

At last, I must mention that I have been immensely helped by the executive committee members, departmental colleagues and students in organizing 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 activity and I do hope that our activities will grow in the days to come!

Bikramjit Basu  
Secretary, IIM Kanpur Chapter  
26<sup>th</sup> April, 2008