

Editorial

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Welcome to the 6th International Conference & Exhibition on Powder Metallurgy for Automotive and Engineering Industries and 37th Annual Technical Meeting at the Westin, Koregaon Park, Pune, during Feb 3 to 5, 2011. The occasion will provide cost effective solutions through PM and informative Trade Exhibition. We hope to see you in Pune. The powder metallurgy short course conducted at : College of Engineering Pune, attracted record number of participants. Particulate materials plant practice course is planned in Early 2011. Transactions of PMAI, Vol.36,2010 is being published and will also be available in our website www.pmai.in. Further development in VVT technology (published in the previous issue) is reported here. We pay homage to a very eminent powder metallurgist and senior active member of PMAI Dr. R.Sundaresan. This issue has been sponsored by CERAMET INDIA. PMAI wishes its members a very happy & prosperous New Year 2011.

INTERNATIONAL CONFERENCE & EXHIBITION

On

Powder Metallurgy for Automotive and Engineering Industries Cost Effective Solutions through PM & 37th ATM of PMAI on Particulate Materials

Venue - The Westin Pune, Koregaon Park

3rd to 5th February 2011

Organized by - Powder Metallurgy Association of India



PM-11

International Conference with Exhibition



The Powder Metallurgy Association of India, cordially invite you to present paper/ participate/ advertise/ exhibit/ sponsor in the "International Conference & Exhibition on Powder Metallurgy for Automotive and Engineering Industries: Cost Effective Solutions Through PM" and take this opportunity to keep yourself abreast of the latest developments in academic institutions, research organizations and industries in Powder Metallurgy, Particulate Materials and composite materials from India and all over the world. There will be special thematic programs in conjunction with the conference on Powder materials, manufacturing equipments, particulate injection molding etc. Already a lot of enthusiastic response has been received from all over the world and many of our representatives and international organizing committee members and well wishers have ensured that truly this conference is well represented from manufactures, executives, researchers, scientists and academics from all over the world. Wherever our members have been going they are ensuring that PM-11 is part of their agenda.

We are in partnership with Metal Powder Report (MPR) <http://www.metal-powder.net> for media propaganda and a special supplement is being published in jan-feb issue of Metal Powder Report, focussing on the conference. With a lot of interest generated about India and its potential as a technology power and many multinational companies already put up their operations. We need to present our best to speed up the tempo in PM area. We are expecting more than 300 delegates (manufacturers, end users and young scientists and students) to participate..

We take this opportunity to invite you to be part of this grand event and making it a mutually useful event. The brochure can be accessed from : <http://pmai.in/pdf/PM%2011%20-%20Brochure.pdf>, <http://pmai.in/pdf/PM%20Forms.pdf> as well.

A separate 4 hour session devoted to MIM/CIM for the Conference delegates as well as for others who are interested only in this subject will be conducted during the conference.

The structure of this session will be :

- ◆ Introduction to MIM/CIM technology
- ◆ Overview : Feedstock technology.
- ◆ Overview : Injection moulding technology.
- ◆ Overview : Debinding & sintering.
- ◆ An entrepreneurs experience.
- ◆ Panel discussion and questions / answers session.

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PMIA

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PMSC-2010



A four day Powder Metallurgy Short term Course (PMSC-2010) was organized by PMAI in collaboration with Department of Metallurgical Engineering, College of Engineering Pune on 8-11/10/2010. PMSC has received overwhelming response with total participation of 70, representing various states viz. Maharashtra, Karnataka, Kerala, Chennai, Andhra Pradesh, Gujarat, Madhya Pradesh, Chhattisgarh, Uttar Pradesh, Delhi, West Bengal and one participant from Sri Lanka. Mostly participants were drawn from OEM, PM Company, Equipment manufacturers and students from Metallurgical Engineering. at the outset of the program, P.N.S.Sivan, President PMAI, welcomed the participants and invited guests. An inaugural speech was given by V.Srinivasan, Managing Director and Vice President, Hoganäs India Pune followed by brief account of PMAI by Prof.PRamakrishnan. Dr.N.B.Dhokey, Convener of PMSC-10 welcomed the participants on behalf of COEP and explained the objectives of the short term course. This was followed by series of distinguish 26 lectures delivered by 23 speakers from industry, academia and research organization. As part of the course, a half day tour was organized at GKN Sinter Metals Pune. A generous sponsorship was given by N.Gopinath, Fluidtherm Technology Chennai. Dr.S.PButtee, Mahesh Kamble, Mahesh Nipani and members from PMAI had extended their kind support for the grand success of the course.

Sr.No.	Name of the Speaker	Affiliation
1	Dr. Malobika Karanjai	ARCI Hydrabad
2	Dr.T.R. Ramamohan	Consultant PM, Ceramics & Dimonds
3	Dr.PRamakrishnan	Emeritus Prof IIT Bombay
4	Dr.Murali G. Krishnamoorthy	Novoken Innovations Mumbai
5	Bijoy Sarma	Consulting Scientist Hyderabad
6	Narsi Chandrachud	GKN Metals, Pune
7	Uday Bendre	Hoganas India Ltd Pune
8	Sanjay Rastogi	GKN Metals, Pune
9	Dr. S.A. Borkar	Pradeep Metals Mumbai
10	Prakash Dhoka	Industrial Metal Powders (India)P.Ltd Pune
11	J.S.Sachdeva	Newmet Mumbai
12	Bal Ginde	Pune
13	Dr. Sanjay Basu	Sandvik Asia Pune
14	Raghunath	Fluidtherm Technology P Ltd Chennai
15	Dr. Parag Bhargava	IIT Bombay
16	Anant Andhale	Unitherm Furnaces Ltd.Pune
17	Nilesh Gawande	Maxtech Sintered Products Pune
18	Mahesh Kamble	Speciality Sintered Pune
19	Sandeep P.Butee	COEP Pune
20	Dr. N.B. Dhokey	COEP Pune
21	Dr.Shriharsh Ingle	SECO Tools India (P) Ltd Pune
22	Dr. V.N.Vaidya	Formerly scientist. BARC, Mumbai
23	V. Krishnamoorty	Hoganas India Pvt. Ltd. Pune

PMSC-10 Participants

S.No.	Name of the participants	Name of Company
1	Sachin Pimpalnerkar	Sandvik Asia Pune
2	Hemal Rambhia	Avni Enterprises Mumbai
3	Pramod Nagnath Ghodke	Kirloskar Oil Engine Pune
4	Sandeep R. Saykdhindikar	Kirloskar Oil Engine Pune
5	Kapila Ekanayake	Bogala Graphite Lanka Sri Lanka
6	More Hemant	Tata Motors Pune
7	Narwade Sachin	Tata Motors Pune
8	K Raghuram	Rane Engine Valve, Ponneri
9	S Muthiuvell	Rane Engine Valve, Ponneri
10	R Lakshmi Priya	Rane Engine Valve, Ponneri
11	Vishal Raikar	Rivon Engineering
12	Mohit Khandeparkar	Vnka Industries
13	Datta Gadhav	Speciality Sintered Pune
14	J K Chaudhari	Speciality Sintered Pune
15	Tukaram Dhake	Speciality Sintered Pune
16	Vipul Utkar	College of Engineering Pune
17	Sunil Rohom	College of Engineering Pune
18	Mulla Suhail	College of Engineering Pune
19	Vaishali Poddar	College of Engineering Pune
20	S Sivasankaran	National Inst. of Tech. Tamilnadu
21	Joji Abraham	Accu.Fit Ceramic Dental Lab Kerala
22	Mr. Bhaskaran	NIT Tamilnadu
23	Nilesh Gawande	Maxtech Pune
24	Atul Zope	Maxtech Pune
25	Vijaykumar	Maxtech Pune
26	Ankit Porwal	WIT, Solapur
27	Milind P. Donde	New Deccan Engg. & Trade Ser., Nasik.
28	Nilmani Chandrakar	Kushal Ferro-Alloys, Bhilai
29	Sumit Kumar Rander	Ramanand Marbles, Ajmer
30	N.K. Vernekar	BARC Mumbai
31	Jagannath G	Magna Steyr India Pvt.Ltd, Pune
32	A.Ramadoss	Magna Steyr India Pvt.Ltd, Pune
33	B. V. Bhadak	College of Engineering Pune
34	Thakar Prathamesh	College of Engineering Pune
35	Mane Rushikesh R.	College of Engineering Pune
36	Kamalapure Anup	College of Engineering Pune
37	Nikhil Patil	Mahindra Hinoday Pune
38	Apeksha J. runwal	College of Engineering Pune
39	Bhavana Shrigadi	College of Engineering Pune
40	Priyanka K. Lalge	College of Engineering Pune
41	Jyoti Suryavanshi	College of Engineering Pune
42	Kunal R. Nikam	Nikam Sintered Products, Kolhapur
43	Mahandran S.	R.V. College of Engg., Bangalore
44	Jaspreet Singh Bhatia	Entrepreneur Kanpur
45	S.R.Adkar	SECO Tools
46	P.C.Adiga	SECO Tools
47	P.D. Shah	Kalyan Industries Bhavnagar
48	Anirudh Kulkarni	Fluidtherm technology Chennai
49	Vikrant Ambekar	Fluidtherm technology Chennai
50	Monika Mohan	PSG Coimbtore
51	Raghottam Savanur	Glowtronics Pvt. Ltd. Mysore
52	Shashidhar N.G.	Glowtronics Pvt. Ltd. Mysore
53	Jadhav Aniket	College of Engineering Pune
54	Shisode Amol	College of Engineering Pune
55	Yunus Dastagir Sayyed	Diagno India Kolkata
56	Manas Das	Graphite Kropfmuhl AG Germany
57	Atul Ruikar	Kirloskar Oil Engine Pune
58	Sumit Gupta	Tecumseh Products India P. Ltd. Hyd.
59	Monideep Majumder	Tata Metallica
60	Somayya Madki	Tata Motors Pune
61	Nazia Patel	College of Engineering Pune
62	S.M.Gadge	Accretion technologies Pune
63	Sumit Ban	Accretion technologies Pune
64	Saibabu	Innomet Powders Hyd.
65	Keyur Patel	PP Patel Solapur
66	K.Surwanshi	College of Engineering Pune
67	J.S.Sachdeva	Newmet Mumbai
68	Moni Modi	IIT Bombay
69	Rahul A Lotlikar	Studnt, MBA Pune

PMP2 Workshop

PARTICULATE MATERIALS – PLANT PRACTICE (PMP2)

Dates & Program will be announced shortly.

To generate second level manpower with knowledge specific to practices in P/M plants, such as those producing powders as well as sintered products, be those from metals and alloys / hard metals / advanced ceramics (structural/ electrical/ magnetic) / composites.

The workshop will be of three days duration. Morning sessions will be devoted to the lectures on applied aspects of PM technology, the afternoon sessions will be an in plant training at Particulate Material Lab., IIT Bombay, Mumbai and a full third day training at M/S Sintbush India Ltd. on operations such as blending, compaction, sintering, secondary operations and characterization of powders and evaluation of sintered components. These lectures will be given by experts from PM Industry and equipment manufacturers.

New Powder Metallurgy Parts for Variable Valves (VVT) Systems

Variable valves timing (VVT) systems are installed in modern internal combustion (IC) engines instead of traditional camshaft. VVT's are constructed of two subsystems, one is the mechanical valve train system which drives the intake valve and the other is the electrical actuator system which operates the mechanical valve train system to change the amount of valve lift. PM parts have been finding increasing applications in VVT

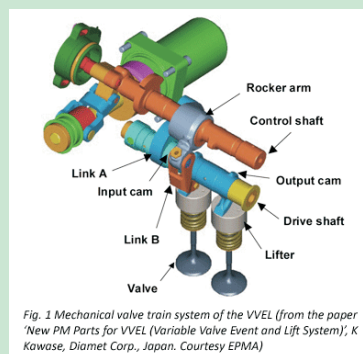


Fig. 1 Mechanical valve train system of the VVEL (from the paper 'New PM Parts for VVEL (Variable Valve Event and Lift System)', K Kawase, Diamet Corp., Japan. Courtesy EPMA)

systems in recent years. As previously reported, VVT systems have done much to improve fuel efficiency and to reduce emission levels of automotive IC engines by advancing or retarding the timing of the intake or exhaust valves.

Japanese researchers at Diamet Corp. (Niligata), Hitachi Automotive Systems Ltd. (Kanagawa), Nissan Motors Ltd. (Yokohama) and the Sibaura Institute of technology (Tokyo) reported in a presentation (by Kinya Kawase, et al.) at PM2010 in Florence, Italy, that two new PM parts, 'Link A' and 'Input cam', have been developed for a Nissan Vvt system with the 'Input Cam' used to convert rotating to oscillating movement with 'Link A'.....

Obituary



It is the sad news of the demise of Dr. Raja Sundaresan in a road accident near Hyderabad on the way to Bangalore.

Dr. Sundaresan was not only a great friend and well wisher of PMAI, who was always available for any thing the association wanted, but also an eminent powder metallurgist. He is an alumnus of IIT Mumbai and has worked with Sam Froes in the US. He was one of the early Indian scientists to work on mechanical alloying and metastable processing of particulate materials. He has contributed a lot in developing PM technologies, which have been transferred successfully for commercial development as a part of ARCI. Even after retirement he continued his research in NFTDC. He has been a great mentor. He has been spear heading most of our PMAI activities in Hyderabad and always contributed immensely to the progress of the organization. He has been conducting the PMAI's Powder Metallurgy Short Course for a long time till recently. PMAI has lost a precious person.

PMAI deeply mourn his loss and pray for strength to his family to overcome the loss. May his soul rest in peace.



Mr. M.A. Gore, our Chairman started his own business enterprise in June 1980. Our flagship company CERAMET INDIA started business activities with promoting a variety of imported equipment and raw materials with a focus to capitalize on the requirements of the electronic ceramic and powder metallurgy industry.

We started manufacturing such equipment since 1994 in our established entity CERAMET INDIA. Our existing trading activities were transferred to strategic business unit CERAMET CONSULTANTS PRIVATE LIMITED. Today, our trading activity CERAMET CONSULTANTS PRIVATE LIMITED is our flagship company with an annual trading volume of over 500 million rupees.

Business Activities

- ❖ R&D Trials to generate Tailor-made Solutions for specific requirements of customer.
- ❖ Rugged and cost Effective Solutions.
- ❖ Equipment engineered to perform with minimal maintenance downtime.
- ❖ Efficient Service Backup from our Service Team.

Manufactured Equipment

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Customer Reference List

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- ❖ The Directorate General of Naval Projects (Visakhapatnam), ❖ M/s Sundram Fastners Ltd., ❖ M/s GKN Sintermetals Ltd.,
- ❖ M/s H&R Johnson India Ltd, ❖ M/s Sud Chemie, ❖ M/s National Starch, ❖ M/s Hoganas India, ❖ M/s Sika India

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