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Editorial

International PM-09 , Goa, Conference & Exhibition on High Performance Materials by Powder Metallurgy for Automotive and Engineering Industries was a great success, despite the innumerable problems currently faced by the global market and economy. A report of the salient features of the event along with the selected presentations are reported in this issue. Mr.P.N.S.Sivan, Managing Director of Sintbush (India) Pvt.Ltd., has taken over as the President of PMAI. We acknowledge the good work done by Mr.Bijoy Sarma and his entire team. Other coverage include new PMAI office bearers, members, award winning product of PMAI, and the profile of the sponsor company Precision Sintered Products.

P.Ramakrishnan



International Conference and Trade Exhibition PM 09, Dignitaries present on the dias during the inauguration. From left. Dr.T.R. Rama Mohan, Bijoy Sarma Président PMAI, N.R.Menon MD, ACGL, Manohar Parrikar Leader of the Opposition Goa Assembly, Prof. P. Ramakrishnan Convener, PM09, PNS Sivan Hon. General Secretary PMAI



Manohar Parrikar Leader of the Opposition Goa Assembly and alumnus of IIT Bombay inaugurating the International conference PM09 by lighting the lamp. from left PNS Sivan, Prof. P. Ramakrishnan, Bijoy Sarma, Dr.T.R. Rama Mohan and N.R.Menon

Editorial Board:

Report on the International Conference & Trade Exhibition PM 09

The 5th. International Conference & Exhibition on High Performance Materials by Powder Metallurgy for Automotive and Engineering Industries and 35th. Annual Technical Meeting of Powder Metallurgy Association of India, during Feb. 16-18, 2009 at Cidade De Goa Resort, Vainguinim Beach, Panjim, Goa was inaugurated by Mr. Manohar Parrikar, leader of the Opposition, Assembly of Goa. He elaborated the engineering and political aspects in a lucid and humorous way which was well appreciated. Mr. N.R. Menon, Managing Director, Automobile corporation of Goa Ltd. Inaugurated the Trade Exhibition. Mr. Bijoy Sarma, President of PMAI, welcomed the gathering, Prof. P. Ramakrishnan, Convener, highlighted the salient features of the Conference and Mr. P.N.S. Sivan, Secretary, PMAI proposed vote of thanks. More than 200 participants attended the event, followed by presentation and discussions of more than 80 technical papers in 17 technical sessions and 2 memorial lectures. Developments in PM automobile engine components by Dr. Cesar Molins of EPMA, presented a number of examples of the innovations brought by PM and illustrated the way in which they have contributed to the reduction of weight, volume, environmental impact, cost and increased the reliability and performance. The contribution of Dr. K. Narasimhan of Hoeganaes Corporation, covered the recently introduced low cost alloy systems and advanced higher density processes such as warm compaction and surface densification and their impact globally on automotive transmissions and opportunities for PM. A contribution from Hoganas Sweden dealt with the solutions for sinter hardening with a number of cost effective low alloy steel powders, instead of expensive nickel and molybdenum, with good static and dynamic properties. An approach to reduce cost of heat treated powder metallurgy parts was a presentation from Narsi Chandrachud of GKN Sinter Metals, India. Another contribution from Hoganas Sweden demonstrated that the powder metal materials meet wrought machined materials gear tooth bending strength and rolling contact fatigue strength.

In the commercial success stories session, Edul Daver explained the magic of open book management for the success of his organisation while Henning Zoz elaborated nanostructured materials by HKP in commercial manufacturing. Other interesting and informative presentations include new premixes with improved lubrication systems from Hoganas, Sweden; Increased economic efficiency in powder compacting by Hubert Plank; Expected changes in PM part compaction from SMS Meer; Improving overall equipment efficiency on powder compaction systems from Osterwalder; Microwave processing of metallic materials by Dinesh Agrawal of Pennsylvania State University and advanced high temperature pusher furnace concepts by N. Gopinath of Fluidtherm technology. There were also technical sessions dealing with powders, consolidation and sintering; Defence materials and processing; Nuclear materials and processing and Special materials and processing.

R.V. Tamhankar memorial lecture by Dr. Balasubramanian dealt with hybrid processes in powder processing while P.R. Roy memorial lecture by Arun Kumar, covered powder metallurgy in nuclear fuel fabrication. On the last day of the event there were parallel sessions covering large number of presentations in sessions like synthesis and characterization; processing; electrical, magnetic and electronic materials; machinability and wear properties; alloys, ceramics, composites and nano materials. Academic Institutions, Atomic energy & Defence laboratories, Industrial R & D's; Private and Government organisations were well represented. 'Preparation of high purity sub-micron spheroidal zirconia powder from impure zirconium salt through polyol route' by Amit sinha, Pankaj kumar sinha and Beant prakash Sharma of BARC was selected for the best paper award. High efficiency sintered metallic disc brake pads for high performance cars and trucks by Akhilesh Engineering, Hyderabad won the best product award. The delegates enjoyed the Mandvi River Cruise and Conference Banquet. The Conference proceedings will be published soon.

PRamakrishnan
Convener, Intl. Conference PM-09

National Conference on Powder Metallurgy and 36th Annual Technical Meeting of PMAI will be organised in Jaipur during January 2010. Tentative dates 28-29 January 2010.

BEST PM PRODUCT AWARD 2009



Sintered metallic disc brake pad

by

AKHILESH ENGINEERING,
Hyderabad, India

Most disc brakes use junction elements as resin bonded metallic pads bonded onto a steel support plate. Performance conditions are so severe that sintered disc have proved their efficacy in high performance cars and trucks. Sintering of both elements in a single step has eliminated the need of using a blanked steel plate.

DR. G.S. TENDOLKAR AWARD FOR THE BEST PAPER 2009

Awarded to

Dr. AMIT SINHA

Materials Group, BARC, Vashi Complex, Navi Mumbai. India

Preparation of high purity sub micron spheroidal zirconia powder from impure zirconium salt through polyol route

Authors : Amit Sinha, P.K. Sinha, B.P.Sharma

About PMAI

Office Bearers 2009-11

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PMAI Website

Photo gallery of the International conference PM09 held recently in Goa is available on the website www.pmai.in. All the members will be provided the membership ID on or before 15th of April 2009 by personal communication enabling them to access the publications other than Newsletters such as Transactions of the PMAI volume 34, and all future technical publications. PMAI Directory is also available which will be updated from time to time.

PMAI Members in Year 2008-2009

PATRON MEMBERS

PM-10 Fluidtherm Technology Pvt.Ltd, Chennai

SUSTAINING MEMBERS

SM-19 Bogala Graphite Lanka Ltd.

SM-20 Mahindra & Mahindra Ltd. Farm Equipment, Mumbai

SM-21 Precimax Engineers Limited, Navi Mumbai

SM-22 Kyokuto Trading (India) Pvt.Ltd., Chennai

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LM-69808 Sudhakar Sarma

LM-68508 Zafir Alam Md

LM-69908 G.V.S. Nageswara Rao (Dr)

LM-68608 Jaysankar K.

PMAI Event - PM 09 at a glance

INAUGURATION : Addressing the gathering at PM09



Bijoy Sarma



Prof. P. Ramakrishnan



Manohar Parrikar



N.R. Menon

EXHIBITION : N.R. Menon MD, ACGL inaugurating the trade exhibition at PM09



Visitors at stalls in Exhibition, Mr. Manohar Parrikar examining products at HAPP Stall in the exhibition

Technical Session : Eminent delegates from India and abroad delivering their technical presentations during the conference



Dr. Cesar Molins



Mr. Edul Daver



Dr. Henning Zoz



Eckart Schneider



Dr. S. Ashok



Mr. N. Gopinath



Norbert Nies



Stefan Haltener



Dr. Anish Upadhyaya



Pascal Schreyer



N. Chandrachud



Hubert Plank

Memorial Lectures

PR Roy

RV Tamhankar

Felicitation



Dr. Arun Kumar



Dr. Balasubramanian



Babu Golla - of Akhilesh Engg.



Sponsors



An ISO 9001:2000 Certified Company

Precision Sintered Products (PSP) is a leading producer of quality **Sintered Metal Parts** located in Lodhika GIDC, Metoda (Rajkot), Gujarat-India. Since 1997, PSP has seen consistent growth to become one of the quality powdered metal manufacturers in the India.

Precision Sintered Products manufactures a variety of precision, cost-effective Sintered metal components for the Automotive, Tractors, Electric & Electronic equipment, Textile Machinery, Diesel Engines, Home Appliance, Lock Industry, other Industrial Markets and as per customer designs. PSP long history (stable supplier) provides the stability customers seek and is indicative of good response to customer needs, both long term and short term.

The company has in-house tooling capability, materials testing lab, fully trained and equipped staff to assure quality production & cost effectiveness. The company has wide range of products such as Sintered Bronze Bushes, Sintered Iron Bushes & Parts, Sintered Bushes such as Plain, Flanged, Spherical & Washers etc, Powder Metal Parts, Self-Lubricating Bushes, Sintered Metal Component, Sintered Gears, Sintered Outer Inner Rotor, Sintered Mixer Bushes, Shock Absorber parts, Sintered Spacer, Sintered Lock Part, Sintered Harden Component, Powdered Metal Components. The Company has developed market all around Globe.

Satisfaction of Quality

World Class Manufacturer Of
Sintered Bushes & Small Structural Powdered Metal Parts



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