Department of Mechanical Engineering R.V.R. & J.C.College of Engineering

> **AICTE Sponsored** National Seminar on

METAL MATRIX COMPOSITES

September 29-30, 2010

REGISTRATION FORM

1. Name

- 2. Designation
- 3. Organization
- 4. Mailing Address :

Ph.No. :

E.mail:

5. Whether accommodation is required: YES/NO

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6. Demand Draft Details:

Number:

Amount :

Date :

Bank:

(Signature of the Applicant)

I recommend his/her participation in the course

Signature (Head of the Institute/organization with seal)

Date:

Station :

PATRONS OF THE SEMINAR

Chief Patron : Dr. K.Basavapunnaiah President, RVR & JCCE

Patrons : Sri R.Gopala Krishna Secretary & Correspondent, RVR & JCCE

> Dr. M.Gopalkrishna Treasurer, RVR & JCCE

Dr. A. Sudhakar Principal, RVR & JCCE

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Chairman Dr. K.Ravindra Professor & Head

Conveners Dr.V.Chittaranjan Das Professor Er. K.Praveen Kumar Lecturer

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Organized by Department of Mechanical Engineering **R.V.R. & J.C.COLLEGE OF ENGINEERING** CHOWDAVARAM :: GUNTUR - 522 019



Conveners

Dr. V.Chittaranjan Das, M.Tech, Ph.D. Professor, Department of Mechanical Engineering Ph.No. 0863-2288274 *732, Cell No. : 9491108250 E-mail: vcd2k2@rediffmail.com

Er. K.Praveen Kumar, M.Tech. Lecturer, Department of Mechanical Engineering Ph.No. 0863-2288274*201, Cell No. 9849652027 E-mail: kpraveen717@yahoo.com

INTRODUCTION:

Composite materials are presently being used in the most diverse of applications, ranging from aerospace to domestic goods. The term composite originally arose in engineering when two or more materials were combined in order to rectify some short comings of a particularly useful component. High strength materials are those which do not deform plastically or behave in brittle fashion. Whiskers and fibers possess extreme strength. Matrix protects the fibers from environment and enhances the toughness of the composite by deflecting the cracking to a tortuous path. Thus composite has its own distinctive properties, such as being much tougher than any of the constituent material alone. They can be tailor made to posses high strength, high toughness, light weight, low cost, good damping capacity, wear resistance, corrosion resistance, creep strength, fatigue strength, negative thermal expansion coefficient and unusual combination of electronic, magnetic or optical properties to suit many engineering applications.

The manufacturing of composite materials is however, significantly different from that of conventional engineering materials. Design methodologies required to harness the tailor ability of composites need to be understood. The widespread application spectrum calls for high quality, cost effective manufacturing of composite materials. Developments in the area of nanotechnology have added newer challenges for engineers working on composites.

OBJECTIVES:

The course is aimed for the practicing engineers, members of the faculty, research scholars and PG students of engineering institutions of allied engineering branches viz, Metallurgical and Material Science, Mechanical and Production.The course content includes characterization and applications of composite materials.

SEMINAR CONTENT:

The seminar focuses on

- Composite Materials A review on Metal Matrix composites.
- Introduction to Nano composites-Processing and Applications
- Rapid Prototyping in Composites

- Finite element analysis of Composites Applications such as low velocity and ballistic impact, Mechanical behavior of MMCs, design of laminated shells etc.
- Characterization of composites Different techniques for PMC, MMC, CMC.
- Challenges in Manufacturing of composites-Standardization, Cost effectiveness, Waste disposal, Recycling
- Manufacturing of composites Primary and Secondary Processing of PMC, MMC, CMC

PROGRAMME DELIVERY:

Renowned Resource Persons / Subject Specialists from Academia, Institutions and Industry, would be delivering lectures and sharing their experiences with the participants.

ELIGIBILITY:

The programme is open to the teachers of AICTE approved Engineering/Polytechnic colleges working in Mechanical/ Production/Industrial Engineering disciplines, P.G. Sudents, Research Scholars and Production Engineers from Industry. Participants are limited to 40. The completed application should reach the Convener on or before **15th September, 2010.** The selected participants will be informed by **20th September, 2010.**

TA/DA AND ACCOMMODATION:

Participants will be provided with free boarding and lodging at College City Centre. Participants arriving from places 350 km away from Guntur will be paid TA as per rules.

ABOUT THE COLLEGE:

Established in 1985, R.V.R. & J.C.College of Engineering, Guntur is the 'Jewel in the Crown' of Nagarjuna Education Society, which took upon itself the responsibility of enriching the society through promotion of education, literature and culture. The Engineering College, since its inception, enjoyed the status of a proud possession of Guntur and truly contributed to the objective of offering quality education. The college registered a phenomenal growth and today it stands as a premier institution offering engineering and management education at UG and PG levels. In 1998, it had become the youngest college to have been Accredited by the National Board of Accreditation of the AICTE. As on date, all the seven eligible B.Tech. Degree courses have been Accredited in 2002 & 2007 for 3/5 Years which, by far is the best achieved by any private engineering college in the State. The college has been graded as the second best among the private Engineering Colleges by the APSCHE, Hyderabad. The college found a place in 'INDIA'S TOP 100 Engineering Colleges', according to a nation-wide survey conducted by Cfore for the news weekly "OUTLOOK". It is yet another hardearned honour which one cherishes with pride and humility.

ABOUT THE DEPARTMENT:

The Department of Mechanical Engineering started B.Tech course in 1985 and M.Tech (CAD/CAM) in 2004.The B.Tech course had been Accredited with "A"grade by NBA for 3/5 Years in 1998, 2002 respectively. It has been re-acredited for 3 years in 2007. The department was awarded Rs.50 lakh worth of projects by AICTE, NEW DELHI. The Department has well experienced faculty with right mix of specializations and highly skilled and motivated technicians to provide quality education to the students. A well established CAD/CAM laboratory is equipped with 110 high end computer systems and all with advanced modeling and analysis softwares. Many of our students are placed in multinational companies like CUMMINS, ESSAR STEELS, INFOSYS, CTS, TCS, SATYAM, INFOTECH and HYUNDAI MOTORS etc., through campus selections.

REGISTRATION AND FEE PARTICULARS FOR PARTICIPANTS:

- Registration fee by D.D. drawn infavour of Principal, R.V.R. & J.C. College of Engineering, and Payable at Andhra Bank, Chowdavaram Branch.
- ♦ Educational Institutions : Rs. 200/-
- R&D Organizations & Industries : Rs. 500/-
- ✤ P.G Students & Research Scholars : Rs. 100/-
- Registration forms are available on the college website www.rvrjcce.ac.in.
- Filled in applications may be mailed metalmatrixcomposites@yahoo.com or sent by post.