

rajmea news

Volume 13 Jan-June 2015

highlights

- ★ Placements
- ★ All Terrain Vehicle, EI 15 wins World's first Electrical Off-Road Racing event.
- ★ Dr. APJ Abdul Kalam meets our E-BAJA Champion Award winning team
- ★ CZARS Championship
- ★ Mech Mantra 2015

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MECH MANTRA 2015 : RAJMEA(RVR and JC Mechanical Engineers Association) organized their technical symposium, inviting Dr. G.Padmanabham, Associate Director, International Advanced Research Centre for Powder Metallurgy & New Materials (ARCI) as the chief guest. Dr. Padmanabham, addressing the students, shared his vision of education for our country and had inspired the gathering with his words which said, 'Wisdom acquisition is a moral duty and only through continuous learning we can add to the vast knowledge of mankind'. The very presence of Dr. G. Padmanabham, despite his busy schedule was a reflection of the importance that he attached to the commitment of the nation for quality augmentation, felt everyone, after listening to him. Mechmantra '2015 had an overwhelming response from the competitors from various reputed institutions across the nation. This had proved to be the best time for the young minds to air their innovative ideas and showcase their creative skills. A glance at the events organized at Mechmantra are...

Model Expo : This event welcomed the participants to present working models. It provided a platform to give a shape to their innovative ideas.

Enginex : This contest created awareness in technical aspects of an Engine, working of an IC Engine, assembling and dis-assembling, that in turn, enabled an understanding of future trends and challenges.

Robotics : This platform handled three events - Rugged Rover, Robo Soccer and Robo Streak. Robots were made to cross different terrains, play soccer in the desired path.

Paper Presentation : Almost 25 papers were received which created a wonderful platform for knowledge sharing.

AutoCAD Techie was a contest of designing 2D and 3D drawings within the given time.

Iqbuzz was a quiz contest tested the general knowledge of the contestants.

Mr&Miss Mech Mantra was a personality contest that tested students' overall personality, skills and knowledge.

Spot Events: Thirst rocket and Mouse trap were organized to design, build and test a vehicle using energy of one or two snap mousetraps that can compete for different challenges of the competition. 15,000 rupees worth prizes were distributed to the winners of the events.

Staff room

Research Projects in Progress

- ◆ Dr. K. Ravindra, Professor & HoD of Mechanical Department was granted with a twelve lakh worth AICTE-RPS research project on 'Development of High Strength Polymer Matrix Composites reinforced with Metallic Glass Particulates' in 2014. This project is in progress.
- ◆ Another UGC-MRP 4 lakh worth research project of Professor K. Ravindra, on 'Fabrication and Characterization of Nano Al O reinforced Magnesium Metal Matrix Composites' received in 2014 is in progress.
- ◆ Dr. K. Ravindra, HOD of Mechanical Department has been granted with a forty thousand worth, Institution of Engineers UG2015029 project on 'Design and Fabrication of 3D Printer'. This project is also in progress.
- ◆ Dr. K. Srinivas, Professor of Mechanical Department received an eight lakh worth UGC-MRP research project on 'Tool Condition Monitoring based on Acoustic Emission Techniques' in 2015. This project is in progress.

Funds Received

- ◆ Dr .V.Chittaranjan Das received Grant from the DST (File No: SB/SS/221/ 15-16) on 3 June, 2015 to organize a National Seminar on ' Development of Tools Using Bio- Materials for Medical Applications'. This seminar will be held during 18-19 Sept, 2015.

Guest Lectures Delivered by Faculty

Dr. G. Srinivasa Rao, Professor, delivered the key note address in a National Conference on Advances in Composite Materials - NCACM-2015, on 'Fabrication and Characterization of Composite Materials Using Design Of Experiments (DOE) at Gandhi Institute of Engineering

and Technology, Gunupur, Odisha, during 21-22 February 2015.

Research Paper Publications

- ◆ A research paper on 'Magnesium and its Alloys in Automotive Applications – A Review' authored by D. Sameer Kumar, Asst. Prof, C. Tara Sasanka, Asst. Prof, Dr. K. Ravindra, Professor and K.N.S. Suman was published in the American Journal of Material Science and Technology, vol.4, Issue No.1, pp. 12-30 Jan 2015.
- ◆ A research paper on 'Design Optimization of Tripod Truss: SLP Approach' authored by, Dr. G. Chaitanya, Assoc. Prof, Reddy Sreenivasulu, Asst. Prof, was published in the Independent Journal of Management & Production, Vol No 1, pp83-92, Jan 2015.
- ◆ A research paper on 'Optimization of Burr size, Surface Roughness and Circularity Deviation of Aluminium Alloy during Drilling using Taguchi Design Method, ANOVA and ANN' authored by Mr. Reddy Sreenivasulu, Asst Prof, was published in the Independent Journal of Management & Production, Vol.6, Issue No. 1, pp 93-108, Jan 2015.
- ◆ A research paper on 'Tool Condition Monitoring in Hard Turning by Using Acoustic Emission A Review' authored by Dr. Kolla Srinivas, Prof, D. Kondal

*Nothing is
permanent in this
wicked world -*

Rao,
Asst.
Prof,

Staff room

- ♦ A research paper on 'Turbine Blade Cascade Heat Transfer Analysis Using CFD – A Review' authored by Dr. Kolla Srinivas, Professor, Md. Hasheer. Sk, Asst. Prof, was published in the International Journal of Science, Engineering and Technology, Vol. 1, Issue 7, ISSN: 2236- 269X, pp 4-8, Jan 2015.
- ♦ A research paper on 'Powder Mixed Dielectric in EDM—An overview' authored by B.Purna Chandra Sekhar, S. Radhika, Asst. Prof, D.Sameer Kumar, Asst. Prof was published in the International Journal of Research, Vol 2, Issue 02, ISSN:2236-269X, pp : 720-726, Feb 2015.
- ♦ A research paper on 'MADM Technique Integrated with Grey- based Taguchi method for Selection of Aluminum alloys to minimize deburring cost during Drilling' authored by Dr.G.Chaitanya, Assoc. Prof, Reddy Sreenivasulu, Asst. Prof, was published in the Independent Journal of Management & Production Vol 6, Issue No.2, ISSN:2236-269X, pp 464-477, April - June 2015.



♦ A research Paper on 'Application of Taguchi Method to Study the Influence of Cutting Parameters on the Surface Hardness in Turning Inconel 718' authored by Dr.C.Srinivas, Assoc. Prof, Ch. Devaraj, Asst. Prof. V.Rahul Jetson, Sk.Basheer Ahmed, P.Mastan Rao was published in the International Journal of Scientific & Engineering Research (IJSER), vol. 6, Issue 5, pp 153, May 2015

♦ A research paper entitled 'Tensile & Fracture Behavior of Al-Si Cp Metal Matrix Composites' authored by Jushkumar Siddani,

Dr.C.Srinivas, Assoc. Prof. was published in the International Journal of Innovation in Engineering and Technology (IJJET) Vol 5, Issue 2, pp-173-180, May 2015.

- ♦ A research paper on 'Quantitative studies on wear behavior of Al-(Al₂O₃-SiC—C) Composite prepared with in situ Ceramic composite developed from colliery waste' authored by S.B.Venkata Siva, R.I. Ganguly, Dr.G.Srinivasa Rao and K.L.Sahoo was published in the Journal of Engineering Tribology, Vol. 229, No. 7. pp: 823-824, May 2015.
- ♦ A research paper on 'Assessment and Comparison of Fatigue Life for heavy Truck Wheel Rim Under Fully Reverse Loading for Aluminum Alloys' authored by J.Purushottam Karthik, Asst. Prof., DM Kumar and Rangaraya Chowdary, Asst.. Prof, was published in the International Journal of Applied Science and Engineering Vol. 13, Issue. 1, pp 69-79, June, 2015.
- ♦ A research Paper on 'Cell Formation by SLCA Technique Using Various Similarity Coefficients' authored by Dr. D.V.V. Krishna Prasad, Professor, was published in the International Journal of Innovative Science and Technology, Vol.2, Issue 6, June, 2015.
- ♦ A research paper on 'Design of a Compressed Air Vehicle' authored by S. Radhika, Asst. Prof, D. Swapna, Asst. Prof, P. Manikanta, Sk. Sunain, was published in the Journal of Refrigeration, Air Conditioning, Heating and Ventilation, Vol-I, Issue 3, pp 1- 6.
- ♦ A research paper on 'Fabrication and Characterization of 2024 Aluminum—High Entropy Alloy Composites' authored by Dr.K.Praveen Kumar, Assoc. Prof, M.Gopi Krishna, J. Babu Rao, N.R.M.R.Bhargava was published in the Journal of Alloys and Compounds, ELSVIER, pp 421-427.

Paper Presentations in Conferences

- ♦ P. Ajay Kumar and Dr.G.Srinivasarao presented a paper on 'Review of Recent Studies on Fabrication of fabrication of Al and Mg Metal Matrix Nano Composites' published in the Proceedings of National Conference on Advances in Composite Materials (NCACM-2015), Gandhi Institute of Engineering and Technology, Gunupur, Odisha, 21- 22 Feb, 2015.
- ♦ Mr. G. Kishore Chowdari, Asst.Prof. presented a paper on 'Optimization of Milling Process on Jute Polymer Composite Using TAGUCHI Based Grey Relational Analysis Coupled with Principle Component Analysis' published in the proceedings of the 4th International Conference on 'Materials Processing and Characterization' (ICMPC) during 14-15 March 2015.
- ♦ Prof. Dr. D.V.V.Krishna Prasad presented a paper on 'Minimization of voids and Exception Elements in Cell Formation Problem Using Mutation Algorithm' published in the proceedings of the 5th National Conference on 'Recent Advances in Manufacturing (RAM-2015)', organized by department of Mechanical Engineering, S.V.N.I.T, Surat, during 15-17 May 2015
- ♦ R.Siva Sankar Raju,Dr. G.Srinivasarao presented a paper on 'Modeling and Optimization of Al/CSAP MMC Machining Using Taguchi Approach' and it is published in the proceedings of National Conference on Advances in Composite Materials (NCACM-2015)

Conferences / Workshops Attended

- ♦ Dr.Kolla Srinivas, M.Lakshmi Aparna, Dr.G.Chaitanya, Dr.Jetti Appa Rao attended the 4th International Conference on 'Materials Processing and Characterization' on Fatigue Testing of Continuous GFRP Composites Using Digital Image Correlation (DIC) Technique - A Review, during Jan, 2015.
- ♦ Mr. Reddy Sreenivasulu, Asst. Professor attended a two day 'Faculty Development Programme on Finite Element Analysis' organized by Mechanical Engineering Department under TEQIP-II at MallaReddy Engineering College, Secunderabad, during 20-21 Feb, 2015.
- ♦ Dr. V. Chittaranjan Das attended a QIP short term course on 'Micro Manufacturing for Biomedical Applications', organized by the department of Mechanical Engineering, sponsored by AICTE , held at 11T Guwahati, during 23—27 Feb, 2015.
- ♦ D. Sameer Kumar and C.Tarasasanka Asst. Professors, attended a DST — PURSE sponsored two day workshop on 'Advanced Characterization Techniques of Materials (ACTM 2015)',organised by the Dept. of Mechanical Engineering, CEGI Campus , ANNA University , Chennai during 22-23 Feb 2015.
- ♦ Dr. N. Govind, Assoc. Prof. attended a one day workshop on 'Friction Stir Processing of Aluminium Alloys and Composites', organized by the department of Metallurgical and Materials Engineering, 11T, Madras, during 5 March 2015.
- ♦ Mr. J.P. Karthik and Ms. K.L. Chaitanya, Asst. Professors attended a workshop on 'National Instruments' organized by KL University, Vaddeswaram, during 26-27 Mar, 2015.
- ♦ Mr. G. Kishore Chowdari, Asst. Prof. attended an International Conference on Advanced Materials and Manufacturing-ICAMM-15 on 'Optimization Drilling Parameters to minimize Delamination in Drilling of CFRP Composites using Response Surface Methodology' during March, 27-28, 2015.
- ♦ Dr. K. Praveen Kumar, Assoc. Prof. attended a two day workshop on 'High Entropy Alloys prospects and Challenges' organized by the Department of Metallurgical

- ♦ Mr.V.RamaKoteswara Rao, Asst. Prof. attended an International Conference on 'Advances in Materials, Manufacturing and Applications' organized by the department of Metallurgical and Material Engineering held at NIT, Tiruchirappalli, during 9-11 April, 2015.
- ♦ Y.N.V.Sairam,J.Rangaraya Chowdary ,K.Hari prasad,D.KondalaRao, Md.Hasheer, D.Bharath Prasanna, M. V. Nagarjuna, Mr. B. Muddu Krishna Ms. K. Snehitha, Ms. Sneha Dhoria, Asst. Professors, participated in the 'Induction Training Programme' organized by the ISTE Chapter, at RVR & JC College of Engineering, Guntur, during 1-2 May 2015
- ♦ Mr. D.Bharath Prasanna, Asst.Prof. attended a workshop on 'Two Phase Flow, Boiling and Condensation: In Conventional and miniature Systems' organized by the department of Mechanical and Industrial Engineering, held at 11T Roorkee, during 1-5 June 2015.
- ♦ Mr. V. Tara Chand, Asst.Prof. attended the 2nd Continuing Education Program (CEP) on 'Computational Fluid Dynamics: Theory and Practice' under TEQIP-II organized by the department of Mechanical Engineering, SVNIT, Surat, during 15-19 June 2015
- ♦ Mr. J.Rangaraya Chowdary and Ms. Sneha Dhoria , Asst. Professors attended a TEQIP-II sponsored SFITP on 'Supply Chain Management & E- Business', organized by the Mechanical Engineering department, S.V.N.I.T, Surat, during 22-26 June 2015.

Faculty Relieved

Result analysis

Dr. B. Ravi

Year	total appeared	Total pass	Pass %
IV/IV B.Tech (I Semester)	204	195	95.58
IV/IV B.Tech (II Semester)	202	202	100
III/IV B.Tech (I Semester)	194	150	77.31
II/IV B.Tech (I Semester)	214	157	73.36
II/IV B.Tech (II Semester)	210	153	72.85
I/IV B.Tech (I Semester)	179	127	70.95
I/II B.Tech (II Semester)	17	17	100

CZARS:

The campus was all set with colors and competitions on the 6th and 7th March. Vibrant, beaming youngsters with bounteous energy and enthusiasm displayed all their creative skills and talents in CZARS competition which is an Inter Departmental Competition. The students of all the departments take it a prestige and challenge to own this CZARS Trophy every year. Teams from all the seven undergraduate B.Tech and two postgraduate departments view with one another to grab the trophy. In a neck to neck competition the students of Mechanical Engineering won the Trophy to the Students of Computer Science Engineering, making the family of the Mechanical Engineering cheerful, they posed pretty with the trophy to the lenses that were capturing.

Students Corner

FALCON RACERS

RVRJCians were on cloud nine, when Dr. Abdul Kalam pat-
ted them on their back and appreciated their ef-
forts in fabricating an off-road Electric Vehicle
(All Terrain Vehicle -ATV). Had'nt luck favoured
these students, they would have missed a chance
to meet Dr. Kalam alive on 15 March, when he
visited Chowdavaram, on the occasion of the
Golden Jubilee celebrations of Chetana, in Chow-



Kalam meets the winning team

davaram,Guntur.

To go into the success story, the ebaja was the
world's first Electrical Off-Road Racing event or-
ganised by BAJA SAE INDIA, under the initiation
of his Excellency Dr. APJ Abdul Kalam which was
held on 19 February 2015 at Indore. Beast El 15 - an
Off-Road Electric Vehicle developed by Falcon
Racers - a team of 25 engineering students of Me-



The E115 ATV put to test

chanical Department of R V R & JC CE secured
first place in the race, relegating all the other vehi-
cles from different parts of the country to win the E
-BAJA Initiative Award worth 60,000 rupees.

The incredible team work of these vibrant Me-
chanical Engineering students, along with two
ECE students, under the captaincy of Mr. Sakkim-
setti Dileep Kumar of final Mech, was amazing.
They have put their heart and soul to finish off the
fabrication of this vehicle, within a span of two
months, at a cost of Rs. 5 lakhs. This electric vehi-
cle is the 3rd vehicle in the line, that was devel-
oped by the team and the previous two vehicles
were IC driven ATVs. The Falcon Racers' maiden
success was in Delta Shoot - an Off Road Racing
Competition held by TATA Motors, at NIT, in Jan
2014. The team stood second, winning a reward of
40,000 rupees. The next vehicle was developed



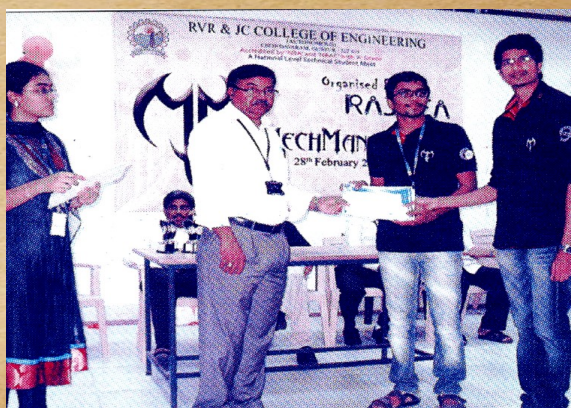
Falcon Racers receiving award from Mr. Peter

with improved vehicle dynamics that stood as the
best durable vehicle in the Baja Student India, or-
ganized by DELTA INC, sponsored by Motorsat
Jamshedpur, held in January 2015.

Falcon Racers said that this success story would
not have taken shape , had there been no support
from the Management of the College, their Head of
the Dept. Prof. K. Ravindra, Faculty Advisors, Dr.
N.V.V.S.Sudheer, Dr. K Balaprasad and techni-
cians, K. Siva Nageswara Rao and K.R.S.Srinivas



MECH MANTRA GALLERY



7 Facts About Bill Gates

BILL GATES EARNS \$250 EVERY SECOND. THAT'S ABOUT \$20 MILLION A DAY AND \$7.8 BILLION A YEAR.



HE CAN DONATE \$15 TO EVERYONE ON EARTH AND STILL BE LEFT WITH \$5 MILLION FOR HIS POCKET MONEY.



IF HE DROPS A THOUSAND DOLLARS, HE WON'T EVEN BOTHER TO PICK IT UP BECAUSE IN THE 4 SECONDS IT TAKES TO PICK IT UP, HE WOULD HAVE ALREADY EARNED IT BACK.



MICHAEL JORDON IS THE HIGHEST PAID ATHLETE IN THE U.S. IF HE DOESN'T DRINK AND EAT, AND KEEP HIS ANNUAL INCOME AT \$30 MILLION, HE'LL HAVE TO WAIT FOR 277 YEARS TO BECOME AS RICH AS BILL GATES IS TODAY.



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IF YOU CHANGE ALL OF BILL GATES MONEY TO \$1 BILLS, YOU CAN MAKE A ROAD FROM EARTH TO MOON 14 TIMES BACK AND FORTH.



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