

**AMRITA**  
VISHWA VIDYAPEETHAM  
UNIVERSITY  
Established u/s - 3 of the UGC Act 1956  
BENGALURU CAMPUS



श्रद्धावान् लभते ज्ञानम्

# Kriti



VOLUME 3, ISSUE 8

The E-Newsletter

JANUARY 2012



Republic Day  
January 26<sup>th</sup> 2012

Swamy Vivekananda  
Birthday 12<sup>th</sup> January 2012



## Spiritual Life

*Humility is the gateway to real discipleship. A true master will himself set a perfect example of humility.*

**-Amma**

**AMRITA School of Engineering  
Bengaluru**

JANUARY 2012

# School Highlights

## Swami Vivekananda's 150<sup>th</sup> Birth Anniversary Celebrated at Amrita

To commemorate Swami Vivekananda's 150<sup>th</sup> birth anniversary, the Vedanta Club organized a talk on 'Swami Vivekananda on Youth' by Sri. Venkatesh Murthy on 11<sup>th</sup> January, 2012, at Amrita School of Engineering, Bengaluru.

Sri. Venkatesh Murthy is the founder of 'Youth for Seva' (YFS) and has been the coordinator since its inception in April, 2007. The mission of YFS is to provide meaningful opportunities of service to those youth with the desire to volunteer.

Sri. Murthy spoke about Swami Vivekananda's unique approach towards spirituality, his discourse on self control and his famous Chicago speech.

## The 63<sup>rd</sup> Republic Day Celebrations at Amrita

Amrita School of Engineering, Bengaluru observed the Republic Day on 26<sup>th</sup> January, 2012 with a flag hoisting ceremony attended by the Correspondent, Br. Dhanraj and faculty.

## **Faculty Achievements / Participation / Recognition**

- ⇒ Dr. T.S.B. Sudarshan has been invited to be a member of Technical Program Committee of the third International Workshop on 'Trust Management in P<sub>2</sub>P Systems' to be held from 3<sup>rd</sup> to 5<sup>th</sup> August, 2012 at Chennai.
- ⇒ Dr. T.S.B. Sudarshan has been invited to be a member of Technical Program Committee for 3<sup>rd</sup> Annual Conference on 'Advances in Distributed and Parallel Computing' to be held on 17<sup>th</sup> and 18<sup>th</sup> September, 2012 at Bali, Indonesia.

# Department of ECE

## Workshops / Seminars / Conferences Attended

NAME	TITLE	NAME OF THE ORGANIZER	DATE	VENUE
Mr. Mahesh Kumar Mr. Swaminadhan Rajula	FDP on "Electromagnetic Theory"	Department of Electrical & Electronics Engineering, Amrita School of Engineering, Amritapuri	5 <sup>th</sup> - 7 <sup>th</sup> January, 2012	Amrita School of Engineering, Amritapuri, Kollam

## Faculty Achievements / Participation / Recognition

- ⇒ Dr. Shikha Tripathi will be on the Technical Committee of 2<sup>nd</sup> International Conference on 'Electronics and Optoelectronics' to be held from 27<sup>th</sup> to 29<sup>th</sup> July, 2012 in Shenyang Liaoning, China. She will review the conference papers that will be published in IEEE Xplore and indexed in Ei Compendex and Thomson ISI (ISTP).
- ⇒ Dr. Shikha Tripathi has been invited to review two technical papers for an International Journal on 'Signal & Image Processing' (SIPIJ), AIRCC.

## **Faculty Achievements / Participation / Recognition**

- ⇒ A research article titled 'A Four Port DC-DC Converter for Renewable Energy Systems' co-authored by Dr. Rashmi M.R., Mr. A. Suresh and Ms. V. Kamala Kannan has been accepted for publication in an International Journal of Electrical Engineering indexed in SCOPUS.
- ⇒ Dr. Rashmi M.R. has reviewed a research paper titled 'Uplink Transmit Power Control in a CDMA Network - A Fuzzy Modeling Approach' for the Journal of Electrical and Electronics Engineering Research.
- ⇒ Dr. Manjula G. Nair reviewed a paper for the International Journal IEEE Transactions on 'Industrial Electronics'.

# Department of ME

## Papers Presented

International Conference			
NAME	TITLE	DATE	NAME OF THE EVENT
Author(s): Mohan Kumar S. Dileep B.P.  Presented by: Mohan Kumar S. Dileep B.P.	“Characterization of Electroplated High strength Aluminum 7075-T6 Alloy”	16 <sup>th</sup> -17 <sup>th</sup> December, 2011	ICDAAME 2012, SKP Engineering College, Thiruvannamalai
Author(s): Veeresh Kumar G.B. C.S.P. Rao Nagamuthu Selvaraj  Presented by: Veeresh Kumar G.B.	“Prediction on Wear Properties of Al6061-Al <sub>2</sub> O <sub>3</sub> MMCs using Artificial Neural Networks”	9 <sup>th</sup> -11 <sup>th</sup> January, 2012	International Conference on Advances In Mechanical, Manufacturing And Building Sciences (ICAMB –2012) VIT University, Vellore- 632 014, Tamil Nadu

## Other News

- ⇒ Mr. Vinod Kotebavi and students of VI Semester attended the ‘Virtual SUPRA SAE INDIA’ competition organized at Pune on 28<sup>th</sup> and 29<sup>th</sup> of January, 2012. Students presented their project work carried out in the campus.
- ⇒ Dr. Pradeep G. Hegde has been appointed as ‘Associate Professor’ in the Department of Mechanical Engineering. He joined the department on 4<sup>th</sup> January, 2012. He is specialized in Thermal Engineering and has an academic experience of 9 years & industrial experience of 2 years. Dr. Pradeep Hegde has publications in 9 international journals and has presented papers in 9 international conferences. He has also reviewed papers for Springer and ASME journals.



# Department of Mathematics

## Papers Published

International Journal			
NAME	TITLE	DATE	NAME OF THE PUBLICATION
Deepa Gupta	"Improving Unsupervised Stemming by Fusing Partial Lemmatization Coupled with Data-Based Heuristic for Hindi"	January, 2012	International Journal of Computer Applications, Volume38, No. 8, pp 1-8

## Corporate Relations & Learning & Development Cell

The Latest count of placement success for Bengaluru Campus is 389 placements for B.Tech. students out of the eligible 396 students. Companies like Subex, Mistral and Sagezzaa visited Amrita Bengaluru Campus in December, 2011 and January, 2012. Sagezzaa selected 5 students. 7 students from Bengaluru were selected by Mistral Solution. 5 students have been shortlisted for the Subex final round process.

### Placements:

A number of core companies came for placements to both Ettimadai and Bengaluru campus this year. A list of core companies is provided below with the success of Bengaluru campus students in these interviews.

Core Companies	CTC (Rs. in Lakhs per Annum )	B.Tech.						Total no. of students placed
		CSE	IT	ECE	EEE	EIE	ME	
Microsoft IT	10.20	2	0					2
Mu Sigma Business Solutions	6.00	1	0	1				2
Caterpillar India (P) Ltd.	7.08						1	1
Soliton Technologies	4.50				1			1
Sourcebits Technologies	6.00	1						1
Robert Bosch	3.14	0		0	0	0	2	2
SAP LABS (P) Ltd.	6.50	1						1
Mahindra & Mahindra	4.32						2	2
Lister Technologies	5.00				1			1
Payoda Technologies (Junior Architect)	5.50	1						1
Payoda Technologies (Software Engineer)	4.00	1	0	0				1
Wipro VLSI - B.Tech.	3.25			5	1	1		7
IP Infusion	4.50	3	1	1				5
Mistral Solutions	3.36		1	6				7
Renault Nissan Technology & Business Centre	3.00				1			1
Mytrah Energy Ltd.	5.25				1	0	0	1
Microchip Technology	4.72			1				1
Ford	5.00						1	1
Wheels India	2.75						1	1
<b>Core Placements</b>		<b>10</b>	<b>2</b>	<b>14</b>	<b>5</b>	<b>1</b>	<b>6</b>	<b>39</b>



## Corporate Relations & Learning & Development Cell

### Internship and fast tracking of our students:

Bengaluru Campus is in the process of completing fast tracks in the CSE & IT Branches to enable our students from this stream to undertake internship projects in organization like Infosys, SAP etc. Some of the Mechanical Engineering students who joined the Infosys internships underwent fast track training at Ettimadai.

### Internships in Core Companies:

Some students have bagged their internships in core companies of high reputation. The list below shows the students and the core companies that have selected them for their internship programs.

* Ms. Srividya	- ECE	- CISCO
* Mr. Nikhil Nandagopal	- CSE	- Siemens
* Ms. Anusuya Chandramouli	- CSE	- Honeywell
* Mr. Gella Shamanth Kumar	- ECE	- Honeywell
* Mr. Saagar Anand	- ME	- Caterpillar
* Mr. Aaditya Sriram	- CSE	- Amazon
* Mr. Rohan Prabhu	- CSE	- Amazon
* Mr. B. Vasudev	- CSE	- SAP Labs

### Winter Vacation Training in Corporates :

116 students of Amrita underwent in-plant training and undertook minor projects in more than 40 organizations. It was a commendable initiative of utilizing their winter vacation productively. Their reports are available in the library for future reference.

### Special Training at Robert Bosch Training Centers:

In addition, nearly 20 students of our campus underwent a certification training program at the Bosch Training Centre. This helped them in gaining expertise in the automotive sector.

### Head Start Foundation Technical Training (HSFTP) by Accenture for the selected students:

All students selected by Accenture underwent the HSFTP during both summer and winter vacation periods.

### The Growth and Evolution of the Learning & Development Team:

Ms. Aiswariya Lakshmi joined the CIR team as a 'Trainer' for Aptitude training on 2<sup>nd</sup> January, 2012.

### Special classes during the evening hours :

Mr. Dipankar, the English faculty, delivered a special module in 'Basic English' to a group of students from second semester. These classes were delivered from 6 PM to 7.30 PM in the evening for a week in the month of January, 2012.

# Abstracts of International Conference Papers Presented

## Department of Mechanical Engineering

### **“Prediction on Wear Properties of Al6061- Al<sub>2</sub>O<sub>3</sub> MMCs using Artificial Neural Networks” – Veeresh Kumar G.B., C.S.P. Rao, Nagamuthu Selvaraj; International Conference on Advances in Mechanical, Manufacturing and Building Sciences (ICAMB - 2012)**

The superior properties of composite materials over the conventional materials have been well acknowledged by the research community. In particular, Aluminum Metal Matrix Composites (MMCs) are sought over other conventional engineering materials owing to their excellent mechanical properties and outstanding wear resistance. Al-MMCs are widely used in aerospace, marine and automotive industries for several different applications. Wear is a complex phenomenon and the most important reason for the damage and consequent failure of machine parts. A lot of experiments have to be conducted in order to study the wear behavior resulting in wastage of both man power and money. Artificial Neural Networks (ANN) help in reducing the cost of experimentation when implemented with care and enough data. In the present paper, the composites of Al6061 containing 2-6 wt. % Al<sub>2</sub>O<sub>3</sub> were prepared using liquid metallurgy route. Wear tests were conducted using computerized pin on disc wear testing machine. The wear properties of the composites containing Al<sub>2</sub>O<sub>3</sub> were better than that of the matrix material and further, the composite containing highest Al<sub>2</sub>O<sub>3</sub> content exhibited superior wear resistance. An ANN model was developed to predict the tribological properties of Al6061-Al<sub>2</sub>O<sub>3</sub> composites. The predicted values of tribological properties using a well-trained ANN were found in good agreement with measured values.

### **“Characterization of Electroplated High strength Aluminum 7075-T6 alloy” - Mohan Kumar S., Dileep B.P.; ICDAAME 2012, SKP Engineering College, Thiruvannamalai**

The influence of cadmium coating on mechanical and fracture behavior of Al-Zn, T6 aluminum alloy was studied experimentally according to ASTM E-8M and ASTM E-399 standards. Specimens were coated with 10 and 20 microns of cadmium. Both coated and uncoated specimens were tested on a universal testing machine, load–elongation and load-crack opening displacement values were recorded. The results have shown the influence of surface coating on tensile strength, hardness strength and fracture toughness. It is found that there is a considerable change in the calculated values of tensile, hardness strength and fracture toughness in cadmium coated specimens when compared with uncoated specimens.

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## Amma's teachings on Spiritual practices

*Doing selfless and loving actions brings us to the door that leads to the realm of the self.*

*A compassionate heart is a far more dwelling place to God than any silken couch or golden throne.*

