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AAR MAHAVEER NEWSLETTER

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From the Principal's Desk

Happy New Year! A new year means new hopes, new aspirations and pepped up spirits. All of us want to do our job better in the new year. How do we motivate our students to attend every period and every day? There are teachers whose classes are always full, and at the same time, there are other teachers whose classes are thinly attended. What is the secret of a successful teacher? The adorable teacher respects every student and speaks with courtesy and affection. He is a master of his subject and an eloquent speaker. He prepares thoroughly for every lecture and writes down the entire lecture and rehearses it before delivering in the class room. He understands the psychology of the students. He makes the students feel his presence and ensures their involvement in the teaching learning process. He permits students to ask questions without fear. He encourages them to come to the platform and deliver a technical point or a message. He allots a few minutes from his 50 minutes for student participation and celebrates their achievement. He welcomes feedback and criticism. He does not take revenge on students who choose to be different. Every student has an urge to achieve. But every one may not have the opportunity to achieve or the means to achieve. The teacher is powerful in that he can provide an opportunity to the student in his class, however small or brief it may be. While there is no doubt that he should spend most of his time with his students dealing with the subject, he must also open other avenues to the student. In the first hour, some times the teacher may have to wait a little before the class room becomes full. He can utilize the waiting time gainfully. For example, he can ask a student to tell before the class what he had read in the newspaper or about an interesting event or technological development. The teacher can bring to the notice of his students about happenings in the world, such as those covered in ***From far and near*** in our Newsletters. The students can be told, for example, about the old man who fills up potholes voluntarily. He can provide an opportunity to the students to plant trees, to water already existing plants, to pick up waste from the floor in the class room. One has to remember to practice before preaching. The teacher need not look to the Management for making the class interesting to the students. Why not guide the students in library / sports / seminar hours? Who prevents the teacher from taking the students on a field trip or picnic to a nearby spot and have a little fun on a holiday? Who prevents a teacher from starting a club whose members will try to build some thing in their spare time? Our students have made solar cookers, foldable bikes etc. Even small achievements can boost the confidence of the students and make their student days most meaningful, rewarding and fulfilling. The five minutes out of 50 minutes which the teacher sets aside for student creativity will make the students remember the teacher for a long time.

– Dr. Palanki Balakrishna

In this issue

We begin with Puja on Deepavali Day. Then we give tips for writing technical papers. *Swachh Bharat* photographs follow. How do we guard our email from hackers? Who was the first Indian woman with pilot license? Then we have photos of Unity Day celebrations. Our staff members received certificates for having volunteered as enumerators in State Survey. Principal was an invited speaker at Institution of Plant Engineers. The true story of a fitness guru follows. We bid farewell to Ms. Priyanka. We also celebrate new year. Then comes the road repair man. The last but not the least is the news stories in the series ***From Far and Near***.



Chairman performing puja on Deepavali Day before distributing prasadam and gifts to all staff

How to write technical / research papers

On 14.8.2014, I and Professor Kamaraju attended a IEEE workshop at the University of Hyderabad. The principal speaker at the Workshop was Professor Saifur Rahman, Virginia Tech, USA. Some of the points made in the seminar are given below for the benefit of our teaching staff who write papers. I have also added points received from Dr. Suryanarayana Palanki (ex Dean, MACT Bhopal), Dr. Srinivas Palanki (Dept. Chair, University of South Alabama), Dr. R. Rao Palanki (former Director, Central Water Commission) and Sastry G. Pantula, (Dean, College of Science, Oregon State University).

[1] Title of the paper: Choose an effective title for the paper. Grab the attention of the reader, but do not mislead. The title should answer the reader's question – is this relevant to me? It should be informative and attract positive attention.

[2] Authorship: Include those who made substantial intellectual contribution to the work. Do not include minor contributors as coauthors. Include names of those who helped in some way in Acknowledgements. In some organizations, inclusion of names of superiors may be a tradition or administrators may impose themselves as authors. The order in which the authors are listed may vary from magnitude and quality of contribution, alphabetical or hierarchical and may be clarified.

[3] Abstract: Describe the content of the paper using the fewest possible crisp and concise words. Do not exceed 250 words. Write as a single paragraph. Use past tense. Tell why you did the work, what you did and

how it moves the field forward. After reading the Title and the Abstract, the reviewer decides whether or not to accept the paper. Then he reads the entire paper to justify his decision.

[4] Key words: Provide list of Key words and index terms which will help in search engine optimization. The key words must be appropriate, specific, logical, applicable and searchable. You may choose from the list provided by the editor. The key words are to be in alphabetical order, typically 3 to 5 and not already appeared in title or abstract already.

[5] Symbols: The symbols are defined where they appear first in the text and are separately listed at the beginning or end of the paper. The listing is alphabetical with English and Greek symbols. Subscripts and superscripts follow. Upper and lower case letters are not separately listed but appear together (a, A, b, B---)

[6] Introduction: Do not use first person. State why you are doing the work. Indicate what was done already and general information on the topic. State your hypothesis. Write in present tense. Let it not be too broad or vague.

[7] Methodology: Formulate the problem and describe processes used to solve the problem, Prove or disprove the hypothesis. Use illustrations to clarify ideas and to support conclusions.

[8] Results: Should be clear and concise. Use Tables and Graphs to show results. Graphs will indicate the trend which is difficult to perceive in tabulated data. A picture is worth a thousand words.

[9] Discussion: Interpret results. Demonstrate that you solved the problem or made significant advances. Indicate the limitations of the work. Otherwise the reviewer will do so.

[10] Conclusion: Explain what the research has achieved as it relates to the problem explained in Introduction section. Revisit key points in each section. Include a summary of the main findings., important conclusions, and implications for the field. Provide benefits and short comings of the solution provided and of the research methodology adopted. Suggest future areas of research.

[11] References: Do not include too many papers of the same author. References dating back upto 10 years may be appropriate. References are to be listed as per the practice specified by the journal. Some journals want references numbered serially, in the same order of appearance as in the text. Alphabetical order may be required in others. Some journals do away with numbering. The reference in the text has the name of the author and year of publication. The listing in the end is alphabetical. Each journal has guidelines that have to be strictly followed. See, for example,
<http://www.elsevier.com/journals/chemical-engineering-science/0009-2509/guide-for-authors>

Avoid the following:

Conflict of interest: a financial or other relationship between the author and the sponsor of research, with the publication at odds with the unbiased presentation of data or analysis. If there are conflicts of interest, clearly state the sources of funding or who sponsored the research. Conflicts are always not avoidable but need to be managed and transparent.

Plagiarism: copying without proper citation. Journals require authors to sign documents that they have followed ethical practices.

Long sentences and jargon which reviewers may not understand.

Editor and reviewers are looking for

- Content that is appropriate in scope and level for the Journal
- Clearly written original material that addresses a new and important problem
- Valid methods and rationale

- Conclusions that make sense
- Illustrations, tables and graphs that support text
- References that are current and relevant to the subject

Reasons for paper rejection

- The content is not a good fit for publication
- Scientific flaws, inconclusive results, incorrect and inadequate interpretation, fraudulent research
- Poorly written
- Does not address a big enough problem or advance the scientific field
- The work was previously published.
- Quality not good enough for the Journal
- Reviewers have not understood or misunderstood the article.

- Compiled by Dr. Palanki Balakrishna



Brain storming session in progress at AARM – What else can we do for the college?

“If you love those who love you, what credit is that to you? For even sinners love those who love them. And if you do good to those who do good to you, what credit is that to you? For even sinners do the same” – Jesus Christ

“To accomplish great things, we must dream as well as act” – Anatole France (1844-1924)

“In a full heart there is room for every thing and in an empty heart there is room for nothing” – Antonio Porchia (1885-1968)

“Don’t wait around for other people to be happy for you. Any happiness you get you’ve got to make yourself” – Alice Walker (b.1944)

“I don’t know the key to success, but the key to failure is trying to please every body” – Bill Cosby (b.1937)

Mahaveer Educational Society - Swachh Bharat Campaign



Mahaveer Educational Society sponsored modern toilets at the Government High School, Lakshmi Guda, to the west of MIST/AARM.

Sri. Sudershan Reddy, Chairman, Sri. Surender Reddy, Secretary and Sri. Dhanunjay Reddy, Joint Secretary along with leaders at the venue on 2.10.2014



Chintala Ramachandra Reddi, MLA presenting a certificate to Principal, Government High School, Mailardevpalli (located South of AARM/MIST) where a Reverse Osmosis drinking water plant was installed.



Chairman, Mahaveer Educational Society speaking on the occasion

Five ways to secure your e-mail from hackers

1. Archive early and frequently

Most corporate e-mail systems allow people to set up regularly scheduled archiving so that e-mails are moved off the server after a certain number of days. You can still check archived e-mails on your work computer, but they are no longer easily accessible on websites outside the office or on your phone. That limits hackers' ability to access those e-mails too. You can make exceptions for e-mails that you want to keep in your active inbox, and they won't be archived.

2. Get organised

As e-mails come into your inbox, deal with them. Sort them into folders. This segments your data, requiring an attacker to know which folder to go to, or to take multiple steps to search for required information. Paired with archiving, it also ensures that what the hacker does compromise is limited and known for any future damage

3. Keep work email and personal email separate

Don't use your work e-mail for personal e-mail or activities online. That limits details a hacker can glean about you to conduct more sophisticated attacks targeting you as the entryway into your company's system. For example, hackers can learn about your shopping habits or personal hobbies and use those to send a phishing e-mail that appears to come from websites you bought goods from or read frequently. Phishing messages route you to a fake address and allow hackers to gain access to your system.

4. Do not click on unexpected links

If you receive an e-mail with a link or attachment you weren't expecting, send the person a separate e-mail asking whether the first e-mail was legitimate. For links from companies such as banking institutions, hover your cursor over the hyperlink or right-click to show the link's final destination. Before you click, make sure the address that pops up when you hover over the link matches where the hyperlink says you'll be sent. If unsure, use a new window and physically type in the website's address to conduct your business.

5. If you see something, say something

If a link or attachment strikes you as strange, forward it to your IT department as quickly as possible. Your attention and fast response may prevent someone else at your company from making a mistake.

– Courtesy: the HINDU, Sunday 21 December 2014, inserted by M Ranjit Reddy, Asst. Professor, EEE



First Indian woman pilot

Encouraged by her husband, Sarla Thakral (1914-2009) became the first Indian woman to acquire an aviation pilot license in 1936 at the age of 21. Tragedy struck three years later, when her husband, himself a pilot, died in an air crash. Therese Peltier (1873-1926) was the first woman to pilot a plane. Amelia Earhart (1897-1937) was the first woman to fly solo over the Atlantic Ocean.

– inserted by D. Vasudha, Asst. Professor, ECE

National Unity Day Celebrations on 31.10.2014



Dr. S. K. Jena, Regional Officer, AICTE (South Central) and Sri. Raka Sudhakar, Saakshi TV flanked by Chairman and Secretary



Deepa Prajwalana and flower offerings by Sri. Surender Reddy, Secretary



Sri Raka Sudhakar offering prayer to *Bharat Mata* and respects to the Sardar



Words of wisdom from Dr. S. K. Jena



**A power packed message from
Sri Raka Sudhakar**



Dignitaries on the dias taking the pledge for unity



Dr. S. K. Jena being honoured by Sri Sudershan Reddy, Chairman



Sri Raka Sudhakar being honoured by Sri Surender Reddy, Secretary



Spell bound Audience



A few words from principal AARM



Singing the National Anthem

GHMC Certificates awarded to AARM Staff
to enumerators of Samagra Kutumba Survey, Government of Telangana
presented by Dr. R.V. Amarnath, HOD (EEE) MIST



Vedavyas Gurla, HOD (CSE)



Naga Chandrika, Office In-charge

Certificate holders with Chief Guest and principal AARM



G. Uma Devi, Naga Chandrika, K. Pavithra, M. Mamatha, V. Shilaja, Vedavyas Gurla, V. Appalakonda, K. Mallesh and Shesha Saina Reddy



**Principal AARM was an invited speaker at the Meeting of Indian Institution of Plant Engineers
Hyderabad, 13 & 14 November 2014**

Fitness Singh

Mr. Pritam Singh was a physical instructor at my college. He was an ex-service man. He was a man of great physical strength, reinforced by a zeal to perform to the best of his ability. Early in the morning, he used to come down to the hostel and bang on each door to wake up the students. One had to open the door, otherwise he would break it and the damage would be recovered from the student. Then he used to chase the students to the Gymnasium. Once inside, he made them do vigorous exercises non stop for 30 minutes. There was no escape and they were scared of him. In those days, engineering study lasted five years. So for 5 years, they had the benefit of vigorous exercise in the morning. Year after year, batch after batch did the exercises under his guidance. Studies over, the students left for jobs or higher studies. But the habit of exercising continued. Now years later, his students still do the exercises learnt from him in the sixties. They have added a few more picked up from the TV. In parallel, they also avoid junk food and eat hand pounded rice, multigrain dough, fruits, leaves, vegetables and low glycemic index food. The result: No overweight, no tummy. No blood pressure and no blood sugar. No arthritis, no fever and no head ache. They owe their good health to Mr. Pritam Singh. With a few more Pritam Singhs, India will indeed become great.

- Dr. Palanki Balakrishna

Farewell to Ms. K. Priyanka, Lab Assistant (ECE) on 4.12.2014



Priyanka receiving certificate for Commitment to Meritorious Performance



A gift to remember from affectionate colleagues



Priyanka recounting the happy moments at AARM



Sravanthi and Radhika distributing sweets on the occasion

“Find a place inside where there is joy, and the joy will burn out the pain – Joseph Campbell (1904-87)

“The only thing that overcomes hard luck is hard work” – Harry Golden (1902-1981)

Welcoming 2015



Sample of Rangoli by faculty members
Sreelaxmi, Pavithra, Shirisha, Pallavi S,
Shilaja



New Diaries for all
Md. Hussain receives from Sri. G.S.Rao



Decorations by Triveni, A Ramesh, Chaitanya
Kumar adorn walls and roof



All set for cake cutting



Lively singing by G. Ramesh



Every one is happy



New Year ushered in with the slicing of the cake

Worthy of emulation



K. Bal Gangadhara Tilak (67) quietly moves around the city armed with gloves, a broom, a crowbar and tar-mixed gravel to fill up potholes on city roads. has voluntarily filled more than 1,200 potholes in the last four years. Starting off as a lone crusader, this retired railway employee now has 250 full-time volunteers and hundreds others who wish to assist him. “I saw a live accident at Langar Houz when a biker tried to dodge a pothole and died in the process. After two days, exactly at the same spot, an auto-rickshaw driver tried to avoid the pothole and rammed a RTC bus. Two persons were seriously injured in the accident. That moment I thought to myself that had somebody filled the pothole, many lives could have been saved. Within a few days, I came back and filled the pothole on that stretch and continued doing so across the city.”

– Courtesy: the HINDU, Sunday 10 November 2014, inserted by M. Gopi, HOD (ECE)

From Far and Near

Towards manned space flight

The first experimental flight of the Geosynchronous Satellite Launch Vehicle (GSLV) Mark III lifted off from the Sriharikota on 18.12.2014, taking India much closer to realising the dream of manned space flight. The vehicle carried its payload — the 3,775-kg crew-module atmospheric re-entry experiment (CARE) — to the intended height of 126 km. The crew module splashed as expected in the Bay of Bengal.

Eyes in the sky

Small, low-flying drones fitted with cameras and sweeping over crowds in hard-to-access localities of the capital are the new-age machines catching the fancy of police forces, as they grapple with law and order situations. Drones that are less than two metres long and one metre wide and weigh less than two kilos are preferred, to cover an area of about 1000 sq. metres. Their real time videos are relayed to the police control room. “This helps in taking decisions on movement of police personnel, to scan trouble spots and monitor crowds,” a police officer said. While there is great interest in using the new technology, Delhi Police does not have its own drones yet. The flying machines with night and day vision were hired from a private agency. UAVs of the IAF have been used to track movement of Maoists in Jharkhand and Chhattisgarh. Drones were also used to track tigers and spot poachers.

Man’s best friend

Dog breeds like the German Shepherd and Labradors have been part of the National Security Guards for quite some time as they can sniff out human presence and explosives. Now another special breed of dogs will be inducted into the antiterrorist force. It is the Belgian Malinois. The dog has a heavy snout and a big head. It can detect suspect human presence, explosives and Improvised Explosive Devices with a precise correctness. It is intelligent enough to communicate these signals through a nod of his head and not by barking which could lead to alerting of the target. Such dogs were used by US Navy Seals in their mission to eliminate Osama Bin Laden.

Women too are allowed now!

It was in the 1960s that undergraduates of Abdullah Women’s College were told that they could not enter the Library at Aligarh Muslim University. After decades of demand, denial and heart burn, women students walked into the library once again. It took so many years to restore the right. It points to the fact that democracy is not for all.

Waterproof bricks using recycled plastics

Rural houses still use bricks made of clay and straw. These get washed away in monsoon rains. Plastics waste is a universal problem, it being non biodegradable. Now bricks and floor tiles are being made experimentally from plastic waste. Soft plastic shreds are pressed to shape in a mold. The mold is then heated to melt the plastic. The brick is light in weight and waterproof. It does not break when dropped or when hit against a wall. Each brick can withstand a load of 6 tons. A student of the University of Denmark got the idea when she spent three months in India as part of her project work.

Beware of street food!

Eating street food is becoming more and more popular in Hyderabad, with young persons and families stopping by the food cart in the evenings. A study found that 98% of the vendors do not wash the vegetables before processing and serving. Even those who cared to wash had used contaminated water. 56% of the vendors did not peel the vegetables. Majority of the street vendors’ nails were uncut. Nails shelter disease causing bacteria. 74% of the street vendors served carrots of *Staphylococcus Aureus*. 56% onions had the bacteria. E-Coli was also detected in some samples. Stalls in the old city had higher levels of contamination compared to other areas. Dry and clean cutting boards reduced the *Yersinia* and *Salmonella* contamination.

While at work, sleeping for a while is ok!

Japanese workers sleep, on average, for just six hours 22 minutes on work nights, less than those in any other country. More and more companies are now encouraging employees to sleep on the job, convinced that it leads to better work performance. Okuta, a home renovation firm near Tokyo, allows its employees to take a 20-minute power nap at their desks or in the staff lounge. Work performance has improved since workers started taking naps. Employees at Hugo Inc, an Internet consulting company based in Osaka, can take a 30-minute siesta any time between 1 p.m. and 4 p.m.

Draw real circuits with pen!

It is a challenge to create drawings of circuits that would actually work. It is practically impossible to tell from a drawing if the real thing will work. A new company called **Electroninks** has come up with Circuit Scribe that is a roller – ball pen filled with conductive silver ink that enables you to create circuits by just drawing them. All you need is a coin battery, a paper clip, and an LED. You just use the pen to draw circuits with the silver ink, and you will be able to create fully functioning circuits. Circuit Scribe is compatible with various electronic platforms like Arduino and Makey Makey. You will be able to connect components to the conductive link circuits that you have drawn on paper by keeping a magnetic material right behind the paper, or by keeping it on the door of your fridge, and then snapping the components to the circuit directly.

The lonely planet

According to a bio expert at Harvard University, the extinction rate of species is between 100 to 1000 times higher than in pre-human times. At this rate, the Earth is on course to lose half of all animals and plants by the end of the century. We can rehabilitate a damaged habitat to some extent, but we can not do that if we have gotten rid of species.

First lady bishop

The Church of England appointed the first Lady Bishop, Libby Lane, ending centuries of male domination. It comes 22 years of resistance to the promotion of woman priests.

New ideas to lessen global warming

As ships glide through water, they leave a trail of frothy bubbles that appear white and reflect light. By lowering the size of the bubbles, the life of the trail can be increased to about 24 hours. The fine bubbles reflect away sun light and reduce the melting of Arctic ice. It is estimated that 2000 ships can result in a lowering of temperature by 0.5 °C. In another method, sea water is sprayed into the clouds through several thousand submicron size nozzles from ship stacks that are 50 meters high. The clouds become brighter and reflect more sun light away from the earth.

Visit www.aarm.ac.in or www.scribd.com for other issues of the newsletter

Mahaveer Educational Society

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Committed to Education, Emancipation and Empowerment