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October 2017

The Institution of Engineers (India)

MECHATRONICS SYSTEM USING ARDUINO"

98 years of relentless Journey towards engineering advancement for nation building"

Dr. Girish Mundada FIE. Chairman Er. Avinash Nighojkar, MIE, Hon. Secretary

PUNE LOCAL CENTRE

Editor - Er. Rajendrakumar V. Saraf, FIE

FROM THE EDITOR'S DESK



It is my great (DMSA-2017) (A Project Based Learning Approach) pleasure to present the News Letter for the month September 2017. September & October are the auspicious months having

festivals like Navratri, Dushera and Diwali. The festivals are to celebrate the gift of nature to the mankind.

development of the nation use the Hriday Ranjan (Technical Lead-TCS), Natural resources for the betterment of mankind. Last five decades have witnessed the tremendous growth in technology development. During 70s there were only two brands of the manufacturers of the cars - Ambassador and Fiat. Today we have spectrum of the car models available in market. Automobile industries are changing at IEEE Pune Section fastest rate. Heavy weight cell phone introduced in India is now a light weight slim smart phone. There are number of household appliances are available to reduce workload on house ladies. It is forecasted that the education system will be soon paperless. No doubt the engineers have played a major role in all the sectors. However this has resulted in

The department of E&TC Engineering, PICT-Pune in association with Institution of Engineers (India), IE (I) Pune Local Centre and Institution of Engineering and Technology (IET), Pune Network organized the state level workshop on Mechatronics at PICT, Pune. The workshop received an encouraging response from faculty across state from engineering and non-engineering streams and interested students

3-DAYS STATE LEVEL WORKSHOP ON "DEVELOPMENT OF

The workshop was inaugurated by Chief Guest Mr. Shekhar Kamble, GM (HR), TCS alongwith Dr.P T Kulkarni, Principal PICT, Dr. Y Ravinder, HoED, PICT, Convener Dr. G S Mundada, Chairman IE(I), PLC.

The workshop had Eight demo sessions

- Engineers, most important in the 1) Current Trends in Mechatronics delivered by Manav Giri -
 - 2) Mechatronics Design Process by Dr. G S Mundada,
 - 3) Machine Vision by Prof. Ms. Turuk,
 - 4) Mechatronics in Automobiles by Mr. Mulay ARAI,
 - 5) Hydaulic & Pneumatic Systems by Prof Aranke,
 - 6) Recent developments with respect to AI in Mechatronics by Dr. Ms. Munot.
 - 7) Mechatronics in Robotics by Mr. Awadh Singh, Director Finex Equipments,
 - 8) Transducer Design by Prof. M. Khurjekar, Vice chairman,
 - Two sessions on Arduino Programming Concepts and hands on by Prof Shridhar Dudam and Prof. Zakee Ahmed
 - Six Projects built for Level Measurement, Flow measurement, DAQ System, Position Control using Servomechanism, Displacement-Velocity Measurement and Weight Measurement using Load Cells.
 - A case demo of Bottle Filling Plant and Coin Counter. Various kinds of sensors were also put on display. The projects were demonstrated by Prof Sunil Khot, Prof Dudam, Prof Lalit Patil,

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IEI-PLC NEWS

Contd from Pg. 1, Col. 1

increase resource consumption and waste generation. We proudly say that cell phone is no more a luxury. However we never think what will be the fate of millions of discarded cell phone at the end of its life. Same is the problem with cars & used tyres.

Now the time has come to rethink about the development and re-engineer all activities to make them less resource consuming with no or least waste generation. There are good signs, concept of Green building and Green energy are getting established in India.

However we do not have the engineers to make it a reality. The industries, designer, planner, executor and the academician have to come together to redesign the syllabus and trained the engineer to make green and clean India. This will be the real ROLE OF ENGINEERS IN DEVELOPING INDIA.

Lets us join the hand make a beginning with new year Sanvat 2074.

WISH YOU A HAPPY

DIWALI

&

PROSPEROUS NEW

YEAR

Contd from Pg. 1, Col. 2

Prof. Amruta Dixit, Mr Gajanan Kirwale and Mr Rupesh Pawar (Faculty and Technical Assistant of PICT, Pune). Mr. Nitin Patil looked after Food and High Tea arrangements.

The workshop concluded by valedictory function. It was attended by Dr. Y. Ravinder, Prof. Mandar Khurjekar, Dr. G. S. Mundada. Certificates were distributed to participants, resource persons, and Coordinators. Four Participants Prof. Dr. Patil from Science College Pachora (Jalgaon), Prof. Mulla from RIT, Islampur, Prof. Mehendale from TMI, Induri and Prof. Dhanvijay from COEP, willingly shared their feedback on workshop.

Participants expressed happiness over the contents of workshop and felt its uniqueness because of relevant sessions from Industry-academia synchronized with hands on sessions, Live Demos, Components display, Programming modules and Project building. Thus project based learning has given a momentum and dimensions to implement the things from scratch to end to see the conception of idea in reality.

Being together in this workshop the participants were inspired to form a Mechatronics community and interact through this platform to solve doubts-difficulties and arrange such events at various location for benifit of all who were interested in this interdisciplinary subject Mechatronics.

PROFESSOR M.V.DESHPANDE MEMORIAL LECTURE

Professor M.V.Deshpande Memorial Lecture was organized at Firodiya Hall of the Institution of Engineers (I), Pune Local Center on Friday, 1st September, 2017. Er. Medha Deshpande, the Director and Business Unit Head in Yardi Software Pvt.Ltd an American Multinational Company, delivered Professor M. V. Deshpande Memorial Lecture. She talked about Energy Sustainability. She had shared her experience in the field of mergers and acquisitions, services, product development, quality assurance and customer support. Importance of social commitments and values was presented by her. This program was attended by delegates from industries, academics and engineering colleges. Dr. D. J. Doke, Past Chairman, the Institution of Engineers (I), Pune Local Center welcomed the gathering and also remembered his experience with Professor M. V. Deshpande. He felicitated Er. Medha Deshpande on behalf of the Institution of Engineers (I), Pune Local Centre. Dr. Y. P. Nerkar, Convener of Professor M. V. Deshpande Memorial Lecture briefed the contribution of Professor M. V. Deshpande in academics and industries in India and aboard. He introduced Er. Medha Deshpande and also proposed the vote of thanks. Ms. Sharanya Nayak topper of third year Electrical Engineering program and Mr.Ankush Nankade topper of final year B.Tech program in Electrical Engineering from College of Engineering, Pune were felicitated and honoured by offering prizes at the hands of Er. Medha Deshpande.

13th September 17 FASCINATING METRO PROJECTS OF INDIA.

Lecture in association with IIBE-Pune

Er. Vinay Gupta, Chairman (elect), ICI of India & Director, Tandon Consultants Pvt. Ltd. Delhi, was the Guest Speaker. The dais was shared by Er. V. N. Shinde, convener, PLC-IE(I); Prof.VR Phadke, Chairman-IIBE PUNE and Er. Ujjwal, Kunte, Chaiman-ICI Pune.

Er. V. N. Shinde welcomed the dignitaries & audience on behalf of Chairman PLC & spoke about the activities of Pune Local Centre Prof. V. R. Phadke also welcomed the guests, enlightened the audience on the activities of IIBE and introduced the speaker. The speaker was felicitated with memento & bouquet offered by Er. V. N. Shinde & Prof. Phadke. Er. Vinay Gupta delivered very informative talk on Metro Projects of India. The speaker enlightened the gathering on the most modern techniques, equipments, Concreting Forms etc. The audience was delighted to see the "Fascinating" structures in India and abroad also. Er. Sachin Date proposed vote of thanks.

50TH ENGINEERS DAY

The 50th Engineers' Day was celebrated on 15th September 2017 by Pune Local Centre of IE[I] jointly with Indian Water Works Association, Pune Centre.

Er. Pravin Kide, Chief Engineer, PWD-Pune Region graced the occasion as Chief Guest & Prof Rabinder Henry, of I square I-2, Hinjvadi Pune-was Keynote speaker. The celebration began with invocation by Convener Er. V. N. Shinde. Er Avinash Nighojkar, Hon. Secretary PLC welcomed the dignitaries and the audience. He introduced the activities of PLC, Theme - Role of Engineers in Developing India & life sketch of Sir Visvesvaraya... The celebration of Engineers day began with switching-on the decorative Led-lights on the attractively garlanded new portrait of Bharat Ratna Sir M Visvesvaraya by the hands of dignitaries on Dias. The Chief guest, Er Kide was introduced by Dr. Kamalakant Wadelkar, Editor of well known magazine-Abhiyantamitra & Prof. Henry was introduced by Er. D. B. Dhone, Past Hon. Secretary PLC. Er Kide & Prof Henry were felicitated with

bouquets by Er. A. G. Deshmukh & memento by Er. A. K. Nighojkar., presented a gorgeous Memento to each of the honorable guests. Prof. R. Henry delievered Keynote address on the theme ROLE OF ENGINEERS IN DEVELOPING INDIA. Prof. Henry began with the slide showing the famous quote of Dr. APJ Kalam -"One must Dream before a Dream is Realized". He explained the terms Developing and Developed. He emphatically said that Indian Engineers are not working on Research & Development and Innovations in all the branches of Engineering. Our IT sector is labelled as 'top class' on the global scenario but we lack in the basic research in science and technology. While comparing the advancement in the other parts of the world he pointed out that in last 47 years we do not have a single Nobel Laureate. According to him problem faced by India is due to education system that produces Literate English Speaking Skilled Labourers. There is need to provide freedom for Younger Minds (of Engineers) to Dream and Imagine. He concluded with remark that unless indigenous technology is developed and invented within India, it will remain Developing Country for next coming centuries."

Er. Kide said that city, state, and even a country is called as developed or good on the yard stick of good quality net work of Roads. Roads inter connecting cities and states are constructed by the Civil Engineers. Roads in hilly terrain for Military are constructed by Border Roads organization. This NET-WORK opens new avenues for Development. The National and State Highways, Express Ways are termed as Arteries of that region and as vital as Life lines of a human. The road network creates jobs for millions and quick transport of Agricultural produce, Industrial products & Machinery that helps the community at large. Er. V. N Shinde summed up the proceedings of the event and proposed Vote of Thanks.

The program was attended by invitees, several past Office bearers & Members of IE-I-PLC, Members of IWWA-Pune, employees & Officers of PWD and general public.

On 50th Engineers Day, the building was decorated with flowers & illuminated with lights.

STUDENTS CHAPTER OF IEI

Inauguration Student Chapter of Department of Mechanical **Engineering, Diploma PES's** College of Engineering, Phaltan, 01 September, Venue Seminar Hall

Student Chapter inauguration ceremony began with the Saraswati Pujan & lighting of lamp by the Chief Guest Er. Rajendrakumar V. Saraf, Convenor Environmental Engineering Division Maharashtra State Centre of IEI, . The Felicitation of the chief guest was done by Mr. A. A. Ranaware (HOD of Mechanical Engineering Department).

The HOD of Diploma Mechanical Engineering Department Mrs. J. S. Tilekar introduced our college and importance of Student Chapter.

Later Prof. M. B. Jagtap introduced Er. Rajendrakumar V. Saraf. Er. Rajendrakumar V. Saraf gave a motivational speech. Vote of thanks was proposed by Prof V. V. Gundage.

GUEST LECTURE ON "SCIENCE & ENGINEERING OF LISTENING"

BY: -PROF. RAJENDRAKUMAR V. SARAF

Student Chapter of Department of Mechanical Engineering, Diploma PES's College of Engineering, Phaltan, 01 September, Venue Seminar Hall

The lecture was given by Er. Rajendrakumar Saraf on Science & Engineering of Listening It was very interesting because it gave the importance of "effective listener. He explained causes of mind disturbance and how we can overcome them by some simple methods.

1. How to Be a Good Listener?

Being a good listener can help you to see the world through the eyes of others. It enriches your understanding and expands your capacity for empathy. It also increases your contact with the outside world by helping you to improve your communication skills. Good listening skills can provide you with a deeper level of understanding about someone's situation, and helps to know what words are best to use or which words to avoid. As simple as listening (and acknowledging) may seem, doing it well, particularly when disagreements arise, takes sincere effort and lots of practice.

2. Face the speaker and maintain eye contact

In most Western cultures, eye contact is considered a basic ingredient of effective communication. When we talk, we look at each other's eyes. That doesn't mean that you can't carry on a conversation from across the room, or from another room, but if the conversation continues for any length of time, you (or the other person) will get up and move. The desire for better communication pulls you together.

3. Be attentive, but relaxed.

Now that you've made eye contact, relax. You don't have to stare fixedly at the other person. You can look away now and then and carry on like a normal person. The important thing is to be attentive. The dictionary says that to "attend" another person means to; be present, give attention, apply or direct you, pay attention, remain ready to serve. Mentally screen out distractions, like background activity and noise. In addition, try not to focus on the speaker's accent or speech mannerisms to the point where they become distractions. Finally, don't be distracted by your own thoughts, feelings, or biases.

4. Practical sessions

How to do: a. Relax, b. Remove obstacle, c. Sit right, d. Spinal cord is perpendicular to horizon, e. Close your eyes, f. Imagine, you are only one in this class room, g. You are not getting disturbance by so called irritating thinks and thoughts, h. You total concentration is on the ear, i. Listen to various sound coming to your ear



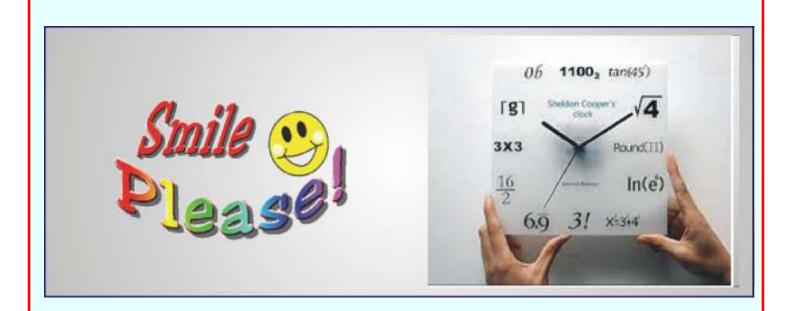


DEPARTMENT OF MECHANICAL ENGINEERING, PES'S COLLEGE OF ENGINEERING, PHALTAN, 19^{TH} SEPTEMBER 2017

Paper Presentation Event under Student chapter (IEI) Kurukshetra-2K17, Tuesday, 19th September 2017 Paper presentations all about how we put our topic or present our topic in front of the public. They see the way we present it and our style of presenting the paper. The language we present the topic in. **Technical presentations** serve engineering, scientific and high tech purposes, describing advances in technology, problem resolution, and product design, project status. So this event was conducted in Kurukshetra-2K17. The main objective of this event is to encourage students to become involved in the dynamic profession of mechanical engineering and to apply the presentation skill. Paper presentation reflects our professionalism. Mr. Arjun Kadam was the Chief Guest.







GLIMPSES OF PROGRAMMES HELD IN SEPTEMBER 2017



Celebration of Engineers Day



Celebration of Engineers Day



18th – 20th August
3-Days State Level Workshop on
"Development of Mechatronics System using Arduino"
(DMSA – 2017)
(A Project Based Learning Approach)



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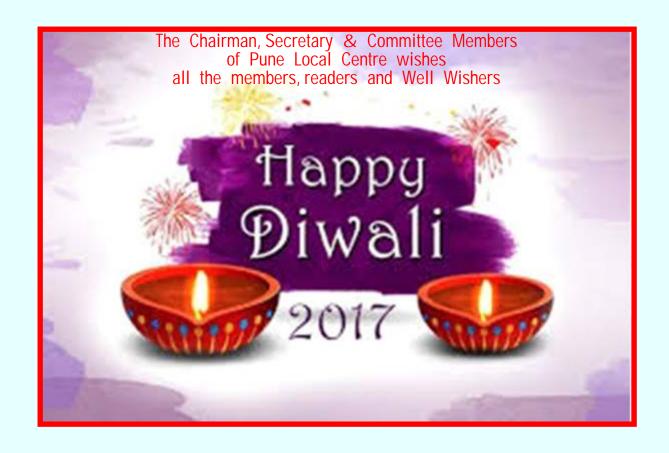
ENGINEERS IN NEWS



Dr. Sushma S. Kulkarni, Director, Rajarambapu Institute of Technology, Rajaramnagar awarded with, "Best Woman Engineering Educators National Award 2017" by Indian Engineering Educator And Administrators Conference (IEEAC – 2017) Organized in collaboration with Tata Consultancy Services (TCS), Mathworks India Pvt. Ltd., Nerul Mumbai, by the hands of Nanda Gopal Chattopadhyay, CTO, NDL Project, IIT – Kharagpur.



Dr. Sushma S. Kulkarni, Director, Rajarambapu Institute of Technology, Rajaramnagar awarded with "Adarsh Mahila Shikshak Purskar" by Giants Group of Islampur, Saheli Maharashtra, on the eve of Teachers Day on 5th September, 2017, by the hands of Hon. Kakasaheb Chitale



Please Mark your Diary to attend the following Programs

Date & Time & Venue	Program Details	Convenor
7 & 8 October 2017 Abhiayanta Bhavan	All India Seminar on Role of Engineers in the Development of Smart Cities Annual Technical Paper Meet 2017 Publication of Annual Technical Journal	Dr. Y P Nerkar
14 October 2017 Firodiya Hall 06:30 pm	World Standard Day Celebration Theme Standards Make City Smarter Chief Guest Er. Mangesh Surve, Guest Honor Er. V. G. Patil, FIE & Er. N. D. Deshmukh.	Er. V. D. Panadarkar Er. H.K. Devkate
Tueday, 24 th October 2017 06.30 pm. Firodiya Hall	शेतातील अंधश्रध्दा वक्ते : श्री मनोहर खके Joint programme with मराठी विज्ञान परीषद, पुणे	Er. V. N. Shinde Er. R. V. Saraf
Saturday, 28 th October 2017 at 19:00 hrs , Firodiya Hall Hall	The Sixtieth (60 th) Annual General Meeting of Corporate Members of The Institution of Engineers (India), Pune Local Centre will be held on at The Institution of Engineers (India), Pune Local Centre, ABHIYANTA BHAVAN, 1332, J.M. Road, Shivajinagar, Pune – 411 005.	Er. Avinash Nighojkar
3rd, 10th, 17th, 24th and 31st. Tuesday 5.30 PM Seminar Hall 1	Water Resource Group & Energy Forum Meeting The meeting is held on every Tuesday to discuss various issues Related to Water & Energy. Pl ease get involve and be a part of Group & Forum	S. V. Tandle Er. A. H. Kelkar. Er. R. V. Saraf

FORTHCOMING PROGRAMMES

Date & Time & Venue	Program Details	Convenor
Saturday 4th Nov 2017, 6.30 PM	4th B G Walimbe Memorial Lecture," Theme- Water management & Governance in Maharashtra State, Issues and Remedial Measures Guest Speaker - Mr. Pradeep Purandare, former Prof WALMI Aurangabad Chief Guest - Er. C.M. Pandit ,Former Member CWC New Delhi	