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MSBTE

Wishes You Happy & Prosperous Diwali

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Theme for the Current Issue:
"Role of Polytechnics in
Development of Society &
Environment in Today's Era"

MSBTE Signs MoU with IIT Bombay's Spoken Tutorials Project

Maharashtra State Board of Technical Education (MSBTE), a leading State Board of Technical Education in India, is always eager to initiate pioneering programs to make its students globally competitive. In a recent major development, Spoken Tutorial Project, IIT Bombay and MSBTE have come together so as to bring about major qualitative upgradation in the field of diploma education by promoting Skill Development in Information Technology Sector amongst students and faculties of Polytechnics and Pharmacy Institutes affiliated with MSBTE. A Memorandum of Understanding (MoU) was signed on 23rd July 2015 between MSBTE and Spoken Tutorial Project, IIT Bombay, aimed at taking Diploma Education of Maharashtra to newer heights.

On behalf of MSBTE, Dr. Abhay Wagh, Director, MSBTE signed the MoU, while Mr. Swapnil More, Training Coordinator- Spoken Tutorial Project, National Mission on Education through ICT, MHRD, signed it on behalf of Spoken Tutorial Project, IIT Bombay.

The Spoken Tutorial Project, IIT Bombay is a project funded by the National Mission on Education through ICT, MHRD, Government of India. The project has extensive expertise in spreading IT Literacy all over India. They are also involved in promoting the learning and usage of Free and Open Source Software (FOSS), through an Audio-Video teaching tool, viz, "Spoken Tutorial".

Under this collaborative project, Spoken Tutorial Project, IIT Bombay will provide a stable and secured online platform with content, support and certification and provide support for training on subjects / topics mutually decided between both the parties.



Dr. Abhay Wagh & Mr. Swapnil More exchanging Spoken Tutorial Project MoU in the presence of Senior Officials of MSBTE

MSBTE has identified Mr. P. G. Savagavi, Asst. Secretary as the Central Coordinator from the office who will actively work and co-ordinate with Spoken Tutorial Project Team, IIT Bombay. MSBTE shall put up the details of the agreement with link to the spoken tutorial website and the contact details on its official website. It shall also issue periodic circulars to all the engineering & technology institutes affiliated to it to introduce and roll out the Spoken Tutorial based software training. The first circular mentions the relevant links and contact details of the co-ordinator

of Spoken Tutorial. It also sensitizes and capacitates the Principals and Faculties regarding the course so as to administer the same to their students.

In this regard, Spoken Tutorial Project, IIT Bombay will also provide course materials and continuous guidance for the roll out of the spoken tutorial training. Besides, they will provide the knowhow and course content, which includes online material, instruction sheets and other training documents to the MSBTE affiliated institutes free of cost. It will also provide the promotional materials like posters, brochures, leaflets, banners etc., to the centre. It will work with MSBTE to develop new open courses on Information Technology with certification based on demand. Finally, it will conduct the final online assessment and issue the participants a Course Completion Certificate. Spoken Tutorial team will provide the Institutes authorized access to Spoken Tutorial website where they will be registered to upload the participants list. Further, they will provide the Institutes with the knowhow on how to complete registration process by the Faculties

This MoU will be valid for one year from the date of entering into and will be mutually extended from time to time. The 'Spoken Tutorial Software Training' programs are available for FREE on http://www.spoken_tutorial.org

The free open source softwares for utilization are:

- Kicad, Oscad for Electronic and Telecommunication group
- Open-FOAM for Civil and Mechanical group
- C, C++, Java, PHP, My SQL for Computer and Information Technology group
- Animation and Graphics for Textile, Dress Designing, Garment Technology group
- Inscape for Civil Engineering

These softwares are being used by students who are guided by their teachers for a simpler and clearer understanding of the subjects learnt at each semester. A total of 7402 students from 89 institutes had earlier benefited through the Directorate of Technical Education, Maharashtra State during 2014-15. Taking the scheme ahead, MSBTE launched it in August 2015 and so far have benefited about 13000 students from 102 institutes. The softwares are easy to use and understand. *****



Dr. Abhay Wagh

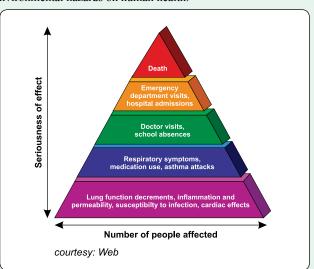
Dear Readers,

"The most environmentally friendly last name is Green" so said an Environmentalist.

It gives me immense pleasure to introduce this issue of MSBTE Newsletter to our esteemed readers highlighting the thoughts and events on an important and challenging theme "Role of Polytechnics in Development of Environment and Society in Today's Era."

The father of our nation, Mahatma Gandhi said, "Earth provides enough to satisfy every man's need, but not every man's greed". We, as a society have ignored this valuable saying and are confronted with several problems related to Environmental issues. It is a wellaccepted fact that technology has bestowed immense benefits to the human life through its numerable innovations and has elevated the lifestyle of the people to a higher level by offering enough luxury and comfort. But on the other side of the technological advancements, there are a number of environmental issues bothering the society. The anthropogenic activities have affected the ecological balance of the nature and have caused environmental degradation. Various environmental issues like global warming, lowered ground water table, depleted ozone layer, greenhouse gases, season change, rise in sea water level, improper monsoon and acid rains etc. have not cropped up all of a sudden but have gradually accumulated over the past decades.

The Environmental degradation has a significant impact on the ecosystem of earth and has warranted immediate corrective action at all facets of life. Although, the exact contribution of environmental factors to the causes of death and disease cannot be precisely determined, World Health Organization (WHO) has estimated that thirteen million deaths annually are attributable to preventable environmental causes. The report also estimates that 24% of the global disease burden (healthy life years lost) and 23% of all deaths (premature mortality) are attributable to environmental factors, with the environmental burden of diseases being 15 times higher in developing countries than in developed countries, due to differences in exposure to environmental risks and access to health care and sanitation. The graphic below illustrates the effects of environmental hazards on human health.



It is not pertinent to reduce technological advancements owing to the fear of environmental degradation. All technological methodologies have a clean procedure for execution. Strict adherence to the procedures alleviates the environmental concerns. The Indian civilization has grown up in close association with nature. Our ancestors have always shown compassionate concern for every form of life. The nature was not only the mother that sustained their life but was also an abode of divinity for our ancestors. Their cosmic vision of earth was based on the concept

of "Vasudhaiva Kutumbakam" meaning "The world is one family". Hence in the current situation, all that needs to be done is to strictly adhere to the eco-friendly norms of life and achieve environment friendly development. Many conscious efforts are taken up globally to achieve development in an eco-friendly manner like emission control norms, emphasis on renewable clean energy sources, energy efficient infrastructure developments, etc. At national level also, there is huge emphasis on Swachh Bharat Abhiyan, alternate energy sources, improvements in emission control norms, cleaning up water bodies etc.

At this juncture, it is very relevant to inculcate sense of environment care in the minds of budding engineering students. It is the need of the hour to punctuate the technological inputs to young engineers with necessary awareness about environment and ecosystem. MSBTE has made conscious efforts to achieve these objectives. An interdisciplinary subject on environmental studies is introduced at Fourth Semester level for all courses in the curriculum since 2013-14. The subject creates awareness about environmental issues. MSBTE has also introduced topics like green buildings, green concrete, and solid waste management in Civil Engineering. Elective subjects like Alternative Energy Sources are introduced at the final year of diploma course. Emphasis is given for final year students projects based on addressing clean energy, emission control and green infrastructure development. MSBTE has also promoted co-curricular activities related to Swachh Bharat Abhiyan, Tree plantation drive, rainwater harvesting etc.

I hereby make an appeal to distinguished readers of MSBTE Newsletter to provide their valuable suggestions in this regard which will assist MSBTE in ensuring that its affiliated institutes play a constructive role in conservation of Environment and Society. I also take this opportunity to wish you all a very "Happy & Prosperous Deepawali".

Dr. Abhay Wagh Director MSBTE, Mumbai

Hon. Shri. Vinod Tawde appreciates MSBTE for bagging Skoch Order of Merit Awards



Shri. Vinod Tawde, Director, Secretary and top officials of MSBTE displaying Skoch Order of Merit Awards

On 3rd October 2015, Hon. Shri. Vinod Tawde, Minister for Higher and Technical Education, M.S. and Chairman of Governing Council of MSBTE visited MSBTE office in Bandra. On this occasion, he congratulated MSBTE team on having conferred with four Skoch Order of Merit Awards for Smart e -governance during Skoch Summit held on 22nd & 23rd September 2015 in New Delhi.

Theme for the Next Issue :
" Skills that make
a diploma holder job ready"

MSBTE bags four Skoch Order-of-Merit Awards

Maharashtra State Board of Technical Education (MSBTE) bagged four Skoch Order-of-Merit Award for implementation of e-Governance initiatives in the field of diploma education in Maharashtra. The awards were presented to Dr. Abhay Wagh, Director, MSBTE during the 41st Skoch Summit - Transformative Governance, held on 22-23 September 2015 at India Habitat Centre in New Delhi. Hon. Mr. M. Venkaiah Naidu, Union Minister for Urban Development, Govt. of India, inaugurated the event, in the presence of Hon. Mr. Manoharlal Khattar, Chief Minister of Haryana. Various other dignitaries present in the award ceremony were Minister of Health, Arunachal Pradesh, Additional Secretary DIT, Government of India & DG, NIC, Dr. Ajay Kumar, IAS, IT Secretaries from various States, Shri R. S. Sharma, IAS, Head TRAI, Head of Microsoft, India, Yes Bank, India and Vice President HP.

Skoch Smart Governance Award is an initiative that recognizes top performing government organizations operating at local, state and national levels. Infact these awards salute individuals, highlight projects and focused institutions that go the extra mile to make India a better nation. This award encourages best practices and models of Transformative Governance for excellent and efficient implementation of programs and services delivery taken across the Country. These Awards recognize the best applications of technology in the various sectors of governance. Skoch Consultancy Services Private Limited, a Strategy & Management-Consulting firm, founded in the year 1997, bestows the Skoch Smart Governance Award. Skoch Award was given after two stringent rounds of evaluation comprising of submission of project details and a presentation on the same.

MSBTE has streamlined the entire diploma education system in the state of Maharashtra by roping in polytechnics from all over the state under one portal, with one application and easy selection and admission process. MSBTE has received these awards for making many important processes faster and transparent with the help of its various e-governance initiatives.

During the second round of evaluation process, MSBTE has made four presentations on its following prestigious projects:

- 1. Online Academic Monitoring System
- 2. Online Verification and Re-assessment System
- 3. Online Enrollment and Examination Forms filling System
- 4. Online E-Marksheet System

All these four projects were selected amongst the best projects in the country. About 800 projects applied for Skoch Award and from amongst them 300 were shortlisted for presentation during 18th to 21st August 2015 at PHD Chamber of Commerce, Siri Fort Road, New Delhi for award of 'Skotch- Order of Merit'. The projects were evaluated and scrutinized by eminent jury.

During the 41st Skoch Summit, Dr. Abhay Wagh, Director, MSBTE, was invited to participate in two prestigious panel discussions as panelist, namely: "Health, Education and Skill Development" and "Digital India and Digital Deliverance". In both the sessions, Dr. Abhay Wagh provided unique insights into the theme of disscussion.

While expressing his gratitude towards the organisation's officers and staff, Dr. Wagh expressed that these Awards will motivate MSBTE in further launching e-governance initiatives for the welfare of its various stakeholders. *****

Skoch Order-of-Merit Awards



Dr. Abhay Wagh, Director, MSBTE receiving the "SKOCH Smart e -Governance Award" for MSBTE's Online E-Marksheet System' at the hands of Hon. Mr.Rajesh Tacho, Minister- Health & Family Welfare, Government of Arunachal Pradesh



The "SKOCH Smart e -Governance Award" for 'MSBTE's Online Enrollment & Examination form filling System' being presented by Dr. A Santosh Mathew Joint Secretary (Skills), Deen Dayal Upadhyaya- Grameen Kaushalya Yojana, Ministry of Rural Development, Govt. of India, to Dr. Abhay Wagh Director, MSBTE and Mr. A.S. Abak, Assistant Secretary, MSBTE



Hon. Mr. Rajesh Tacho Minister- Health & Family Welfare, Government of Arunachal Pradesh awarding MSBTE officials Dr. Abhay Wagh, Director, and Mr. A.S. Abak, Assistant Secretary, the "SKOCH Smart e -Governance Award" for 'MSBTE's Online Verification & Assessment System'.



Mr. Luxmi Narayan, Director, Health Care awarding the "SKOCH Smart e -Governance Award" for 'MSBTE's Online Academic Monitoring System' to Dr. Abhay Wagh, Director, MSBTE and Mr. A.S. Abak, Assistant Secretary, MSBTE.

Role of Polytechnics in Development of Society and Environment in Today's Era



Agrawal

India has more than 50% of its population below the age of 25 years and more than 65% below the age of 35 years. It is expected that, in 2020, the average age of an Indian will be 29 years. While other economies are aging fast, India's Engineers, Doctors & Professionals are most sought after in the world today. Government of India's top priority "Make in India" is aimed at attracting the foreign investment and technology for manufacturing in India. India, with its sound economic fundamentals

and large competent engineering manpower, is striving hard to become true manufacturing hub of the world. The need of hour is manufacturing with "Zero Defect & Zero Effect". Everyone knows the meaning of Zero Defect but "Zero Effect" means manufacturing without affecting the environment. With the danger of "Global Warming & Climate Change" looming over the planet earth, more scientific approach is needed in society to minimize the adverse effects.

Today, India is preparing to really zoom out & take leadership in both services & manufacturing sectors but to make this happen our society needs dedicated work force to take our nation to next higher orbit without compromising on environment. The society needs leadership with clear vision in all walks of life particularly in the field of Engineering. Considering above scenario, the role of polytechnic has become still more prominent today than ever before. I always consider polytechnic student as "Student with very clear vision regarding Engineering Career", as they spell their intentions from Xth standard itself. In my opinion, a mind with very clear vision will lead in manufacturing, management & service sectors in coming years.

Recent development in carbon emission reduction after "Kyoto – Protocol" has resulted in development of Carbon trading market. Every industry is making effort to reduce its carbon foot print. The large commercial buildings are also slashing down the carbon footprints. With trading of carbon emission in place, the requirement of qualified engineering manpower will be much higher than earlier times. In India, under Energy Conservation Act 2001 & Prime Ministers National Mission for Enhanced Energy Efficiency, about INR 75,000 crore worth of transaction in energy efficiency are under progress. This creates vast potential for Engineers for improving Energy Efficiency. Along with employment creation, the GHG (Green House Gas) emission will be reduced which will help to reduce the country's overall carbon foot print.

Shashibhushan S Agrawal

BE (Mech), Diploma (Ener. Eff) BEE Accredited Energy Auditor



Every educational qualification attained by an individual leads to development of the society and country as well. This not only enhances the educational level but provides an individual an aid for earning livelihood.

Let's see the role and responsibility of a polytechnic diploma holder in a private industrial employment. Aiming specific to these candidates, I will call them as "Shock Observer" because they

have to play an important role and vital role between an Operator and Management in an organizational gamut. They are the ones who receive the information, instructions from top Management and have to interpret and administer it in such a manner, so that it is acceptable to operation level people and bring the desired result.

We have seen many people are shifting from farming to service sector because of uncertainty in farming, which do not generate fixed income. The polytechnics can play a very crucial role here by spreading information about how to get technical education from its various courses to achieve their goals. The sectors viz. Machining, Fabrication, Electrical, Chemical etc. can very well suited to rural youth as these are required and can be undertaken at their own place. In rural areas, there is huge opportunity of business for such activities and thus youth can take maximum benefit out of them to enhance their living.

It is said that, knowledge becomes double if it is shared. Therefore, the polytechnics having specific technical knowledge should categorically disseminate it to new entrants and make them understand about their role and responsibility towards the society, this in turn leads to better enrichment of life.

The polytechnics should also take the responsibility to ensure preservation of our environment, which is now at the very threshold of pollution by way of contaminated water, polluted air, high noise etc. Pollution results into various diseases/sickness to mankind. The Institutes should conduct various seminars, trainings to communicate the message of saving the environment. However, truly speaking, merely such seminars are not good enough to protect the environment but there should be a combination of demonstration as well. This can be done by way of taking projects, assignments viz. creation of water ponds, use of non polluting vehicles, plantations, etc. and should also measure the results of the project taken. Good results / successful projects would change the mindset in the society and result in their adaptation in our day today life.

Mandar Parashare

Factory Manager, Kirloskar Oil Engines Ltd., Nashik



We, at E-incarnation Recycling Pvt. Ltd. (ERPL), are dedicated to sustainable recycling and creating a greener future. E-incarnation Recycling was conceived and established in 2010 with the ambition of creating a greener future by recycling and disposing hazardous, end of life electronic products in an environmentally sustainable

manner, to conserve and protect our environment. E-waste is the fastest growing waste stream due to advancement in technology and improving lifestyle. Today, about 95% of the E-Waste is processed by the unorganized, unregulated and unauthorized sector causing irreversible damage to the environment as well as to the underage labor employed in this trade. Toxins like lead, arsenic, cadmium, mercury, etc. are polluting our environment and eco system. Land filling and dumping of these items as well as the unregulated and unscientific processes used in the informal recycling sector are escalating the already mammoth problem of E-Waste pollution. Considering these facts, we would request our esteemed educational institutes to join hands with us and contribute towards our desire to make our planet a better place to live. In association with institutes in Maharashtra, ERPL aspires to ensure environmentally sustainable recycling with Zero Land filling and Zero Emission policy.

Awareness is the only key to tackle this ever-growing problem of e-waste. The only way to treat this problem is by making people aware of the hazards related to unethical disposal of e-waste and its harmful effects on health and environment. If we have to safeguard the future of our future generations, then this is the time to stop dumping and start recycling. It's the time, when youth of India should take over the situation, start spreading awareness, organize awareness events and collection drives and helps us to serve society. We need the public to join hands with us towards Greener Future. ERPL has organized many such awareness drives in schools & colleges. We have delivered lectures and addressed the queries related to the topic. We have received a good feedback after each event. We want polytechnic students to be proactive in spreading awareness within the institution, collect the e-waste and responsibly hand it over to us once a required quantity is accumulated. ERPL will take care of the proper processing and recycling of the same. Students can also form groups and do a similar activity in other schools, colleges and residential societies. We can bear the conveyance and other related expenses of the students when they are out for this activity. We will issue a letter of appreciation to each student mentioning all the details of the activities undertaken by the student during the time they are volunteering with ERPL. Looking forward to positive feedback, long and fruitful relationship with various polytechnics.

Gaurav Mardia

Founder, CEO, E-Incarnation Pvt. Ltd, Tarapur

Success Story of Autonomous Polytechnic Synthetic & Art Silk Mills' Research Association (SASMIRA)

The Synthetic & Art Silk Mills' Research Association (SASMIRA) is a co-operative venture of the man-made textile industry and is a multipurpose, multifunctional research institute to serve its scientific and technological needs. It was established on January 12, 1950 and is linked to the Ministry of Textiles, Govt. of India.

SASMIRA has established itself as a renowned institute in the area of Technical Textiles including Fashion Designing and Apparel Merchandising. Our mission is to promote literate human resource

pool for today's competitive market.

SASMIRA beautiful marble building, which stands magnificently in the heart of the city, Worli. SASMIRA has three state-of-art Computer labs with Internet facilities & all design & technical software, and a specialized CAD lab with high- end graphics, weave & embroidery design software. We have modernized pilot plan with

all textile machineries, where

Main Building of SASMIRA, Worli, Mumbai

students can see the process of weaving, knitting, spinning, jacquard, embroidery, etc. All classrooms, patternmaking & draping labs are state of the art. Garment construction labs supported by 40 JUKI machines - SNLS & specialized sewing machines. Textile labs have the facility for dyeing and printing as well as textile testing. There is a well-stocked library with all relevant books, magazines, journals, research works and subscriptions.

SASMIRA runs four courses affiliated with MSBTE namely, -Advanced Diploma in Apparel Merchandising (ADAM), Diploma in Knitting Technology (DKT), Diploma in Man-made Textile Technology (DMTT) and Diploma in Man-made Textile Chemistry (DMTC). The textile business has realized the importance of technically trained manpower and being equipped with the technical qualification from SASMIRA, many young students have crafted bright careers in the field of Textiles. Students can also pursue further studies after doing these courses.

These are autonomous courses, which help us setting the syllabus for the students. Being in an autonomous module helps us to plan and conduct programs, lectures and workshops, which are

oriented towards making the students more "industry ready". Being autonomous gives us the opportunity to go beyond the conventions of a textbook and give our students more realistic and actual lessons using various methods like projects, market surveys and internships. The autonomy allows us to be creative and exercise freedom but we are staying in the bounds of what is prescribed by the Board.

Every year, SASMIRA takes special efforts towards placing the students. Every year a host of companies approach us for placements. We hold campus placement week to ensure that most of our students are placed and we humbly enjoy a 100% placement ratio.

Meritorious students from SASMIRA get placed not only in India but also in other countries like China, Indonesia, USA, Canada, Dubai, etc. with handsome salaries and creditable designations.

SASMIRA, along with its rich history, experienced and dedicated staff, strong industry linkage and active alumni, works tirelessly towards crafting professionals for the textile industry. ****

Industry Academia Meet for Revision of Curricula

On 27th October 2015, Regional Board of Technical Education (RBTE), Pune, organized an Industry Academia Meet for Revision of Curricula at College of Hotel Management & Catering Institute, Pune. On this occasion, Mr. Anil Sinha, Convener for CII Maharashtra Panel on Skill Development & Affirmative Action, was the Chief Guest and Dr. Abhay Wagh, Director, MSBTE, chaired the meet. Dr. V. M. Mohitkar, Secretary, MSBTE, Dr. D. R. Nandanwar, Joint Director, DTE, Pune and Dr. Earnest Joshua, Head of Electrical Engineering, NITTTR, Bhopal also graced this event. Besides them, Industry Experts, Principals & other educational fraternity attended the program. The program started with opening remarks by Dr. V. R. Mankar, Dy. Secretary, RBTE, Pune.



Dignitaries on the dais at the inauguration of Industry Academia Meet

While spear heading the meet, Dr. Abhay Wagh shared his views and vision on the requirements of the curriculum for diploma students. With an exemplary presentation, he focused on the intricacies of the curriculum that would make the students Industry ready. He also



Mr. Anil Sinha, felicitated during inauguration of Meet

stressed the need of introducing four week In - plant training for the diploma students. Dr. V. M. Mohitkar advocated for more online exams for theory subjects so as to avoid assessment errors. He also emphasized the need for stricter guidelines for implementation during practical assessment and industrial visits.

The Chief Guest of the program Mr. Anil Sinha, in his address asserted that there is no need for learning complex topics of a few subjects for diploma students. He was of the view that the diploma student should be ready to accept global challenges to work in any part of the world, and for which curriculum should be globally acceptable and should be designed in English only. He also orchestrated for the need of ICT online learning. Putting forth his views, Dr. Earnest Joshua, suggested that the curriculum should be designed keeping the student's level of understanding and the technological changes as the prime foci.

The meet concluded with a vote of thanks by Dr. S G Deshpande, Asst. Secretary, MSBTE, Mumbai.

Role of Polytechnics in Development of Society and Environment in Today's Era



Today's generation has wide option for their career selection. After completing the secondary education, students can join ITI course, eleventh arts, commerce or science streams. Some may opt for technological courses offered by polytechnic. As a number of polytechnics offer basic technical knowledge of each discipline and impart hands on skills through practicals, it is quite obvious that

student may apply feasible solution to various practical problems in rural and urban areas. This is an important contribution of polytechnics to the society. Industrialist, builders and entrepreneurs are groomed in polytechnics. Particularly, Civil Engineering diploma holders can work on small scale contracts; projects to construct G + 1 storied building; as they know basic concepts of building construction. Some diploma holders may develop the rural area through constructing village roads for better transportation, overhead water tanks for water supply, biogas plants for energy and fertilizers, watershed management for water availability. The effective way of keeping safe environment is construction of green buildings and promoting tree plantation, which is the need of time.

Mechanical Engineering diploma holders may start small workshops for repairing two-wheelers in the rural area. They can also handle installation of cranes for well excavation, contour bunding in watershed management etc. Electrical and Electronics Engineering students may put up new ideas in energy saving and consumption. Computer and Information Technology students have wide scope in development of society through dissemination of basic education to illiterate people. They can create awareness about the latest knowledge relating to various agricultural activities like online business, market rates for goods, techniques in farming etc.

According to me, the polytechnics can also support several uneducated children with the help of their pass out students. But the bottom line for this article is that polytechnics all over Maharashtra can initiate steps in saving environment by modifying human habits and plantation & maintenance of trees.

Mr. Yogesh S. Kanade

In charge of Diploma, K.E. Soc. Rajarambapu Intts. of Tech., Sangli



Polytechnics have been an integral part of today's society and they have always played a pivotal role in the overall development of the country. Viewing the current scenario, wherein there has been a technical rift between the different sections of the society, it becomes important to think upon the challenges to bridge this gap. Polytechnics have

been designed with a vision of making a stronger technical society and the infrastructure and facilities provided by them can be utilized for up-liftment of the weaker sections. The scheme of community polytechnics is one of the steps initiated by the government for the same. Along with this, the scholarship provided to polytechnic students by MSBTE is also one of the major strength, which makes the technical education affordable to many. Besides, the focus of the curriculum is always on practically oriented knowledge, which helps to develop and promote ideas that help in technical growth of society. Many platforms are provided by these institutes, which help to showcase the innovative ideas and technical skills of the students. These can be aligned with conduction of workshops and trainings in the technically weaker areas of knowledge, which would help them to become technically sound. The project of "Digital India" caters with this. Entrepreneurship opportunities can also be availed by the diploma holders, which can help in gearing up the economy of the country and making it selfsufficient. Inclusion of subjects like Environment Science helps to increase the awareness about the environmental issues amongst the students. This motivation can then be utilized for organizing region wise awareness camps and workshops like educating the masses in rural areas, plantations on barren lands, implementing the water saving projects etc. Thus, polytechnics can play a major role in the development of society not only on the technical front but also on the socio-economic and environmental front.

Ms. M. D Patil

Lecturer, IT Department, K. K. Wagh Women's Polytechnic, Nashik



Dr. G.G. Sarate

Our planet earth has a natural environment, known as 'Ecosystem', which includes all humans, plant life, mountains, glaciers, atmosphere, rocks, galaxy, massive oceans and seas. It also includes natural resources such as water, electric charge, fire, magnetism, air and climate. It is responsibility of every individual to take care

of Ecosystem in all possible ways by observing natural laws. Unfortunately, we have failed to do so and this has resulted in severe environmental crisis. It has been noticed that, technological developments are resulting in resource depletion and environmental destruction. Modern technologies used in industry have a major impact on our life. Due to revamping of engineering and manufacturing industry, drastic changes in the environment are observed as they have increased to a great extent the use of materials like metals, plastic, oil and rubber. These materials are extensively used in the production process of different industries such as Car production Industry, Shipping Industries, Cotton Mills, Plastics Industries, Coal Mining and Heavy Machineries etc. These are causing numerous arduous effects and are considered to be nonenvironment friendly. Crucial environmental issues are no more a blame game. While most of us crib about dirty air, smelly garbage or polluted water, least do we know it is "us" who are responsible for this unfavorable circumstances leading to cautionary environmental issues. Current environmental issues mainly includes Pollution, Climate Change, Global Warming, Deforestation, Overpopulation, Industrial and household waste, Acid rains, Ozone Layer depletion, Urban Sprawl etc.

But our Polytechnics can very well take the responsibility to ensure preservation of our environment, which is substantially polluted. The Institutes should conduct various seminars, conferences, exhibitions & projects to communicate the message of saving the environment among students, faculty and community at large.

Dr. G.G. Sarate

Lecturer in Electronics, Govt. Polytechnic, Yeotmal



Madhuri

The rapid industrialization and globalization have developed an environment for free flow of information and technology through various fast and efficient means world over. This has led to shrinking of world, bringing people from different culture and environment together, giving rise to a global village. A shift has been taking place in India from closed economy to knowledge based open economy since last few decades. In order to cope up with

the challenges of handling new technologies, materials and methods, we have to provide human resources having appropriate knowledge, professional skills and attitude. Technical education system is one of the significant components of the human resource development and has grown pretty well during all these years and now it is time to consolidate and infuse quality aspect in the delivery system.

Technical education plays an important role in the socio-economic development of the country in general and on the other hand emancipation and empowerment of poor and disadvantaged groups / population in particular. It provides varied types of manpower. It is backbone of a country for its infrastructural, industrial and economic development. Our technical education system provides the practical engineering education to students so as to groom up their personalities to such a level that they create a mark not only in the growth and development of our own country but also make a remarkable and positive dent in developed economies of the world. The polytechnic education caters to the need of Industry / Government Departments / Public Sector Undertakings / Defense / Railways and all other employers by providing skilled technicians, supervisors and middle level technical trained manpower. In the coming years, there is going to be greater demand for skilled manpower, not only in the service sector but also in the core manufacturing industry. Indian Technicians have already demonstrated their worth globally.

> Madhuri Madhukar Deshpande Lecturer in Applied Science

Yashwantrao Chavan Institute of Polytechnic, Beed



When we say a diploma course, the usual assumption is that it is for those who are not economically well off. They want to complete their education very fast and settle with a suitable job. But this has been proved wrong. The Polytechnic courses have served the nation in a more fruitful and effective way than our previous perceptions. They are actually playing

Malvika Parulekar a crucial role in the development of the society

and protection of the environment. Diploma courses are usually for those who have just passed their X Board Examinations. These students possess free spirited mind and exceptionally creative ideas about society and our environment. These ideas might seem impossible or outrageously funny to the older generations who had pursued degree and post-degree courses. But diploma engineers have contributed immensely to technological and industrial development of the country. Diploma colleges statewide and beyond have proved this over the decades.

Polytechnic students are providing some great ideas for society betterment especially in the field of environment conservation. In the third year of their course, they usually come up with original project ideas, which largely use renewable energy sources like solar power, hydropower, tidal wave power etc. On one hand, Diploma students undertake ambitious projects such as dam water management to prevent flooding of rivers or facilitating full time water supply in the drought prone areas like Vidharbha and on the other hand undertake simple projects like battery free remote controls. These students are determined to tackle almost any natural or manmade calamity affecting the society. Computer department students are not left behind and are now making software for Indian Railways, Income Tax Department. These achievements are recognized by organizations like BARC, Infosys, Larsen & Toubro etc. and they are more than happy to offer live industry projects to diploma students.

The new policies like "Swachh Bharat Abhiyan" and "Digital India" by our Prime Minister have further ignited a spark in the young minds to offer viable technological solutions for better management of the society and its upkeep issues. A large number of Paper Presentations, Debates and Seminars promise to usher in a better future based on digital management. Such ideas, combined with will power and hard work, will definitely fulfill people's expectations and ensure the development of the society.

> Malvika Parulekar III Year Computer Engineering, VES Polytechnic, Mumbai



India moves progressively becoming a 'Knowledge Economy', the focus on the advancement of skills, which are relevant to the emerging economy, has increased. In the old economy, skill development largely meant development of shop floor or manual skills. But in these new times, the skill sets range from professional, conceptual, managerial, operational behavioral to inter personal skills

and inter domain skills. Polytechnic education plays a vital role in the human resource development of our country. If the students from polytechnic colleges decide to work towards the advancements of our society, the impact that they can create will be huge considering their sheer numbers. This observation was put into practice by students of the Computer Department of the MIT Polytechnic, Pune who are striving to contribute to our society by working under an association called Association of Computer Engineering Students (ACES). It was established on the January 2014 with the goal of polishing the skills of polytechnic students and serving the society in every possible manner as they can.

ACES have been conducting various workshops, seminars, technical competitions and social events throughout the year like -Workshops on Software, Workshops on Application Developments, Expert Lecture on Cyber Security, Techno Fest Inter College Event and Blood Donation Camp etc.

Computer Engineering, MIT Polytechnic, Pune



Pranav Yadav

Everyone is now realizing the importance of environment conservation and the fact that if we don't care for environment, it will not also take care of us. It is very important to propagate and promote the movement of 'Environment Protection'. The term 'conservation' of environment relates to activities, which offer benefits to every individual and commercial benefit too. Conservation may be distinguished

from preservation, which is considered to be "maintenance of nature in its original form as it was before the intervention of human beings. We know that natural resources are getting depleted and environmental problems are increasing. It is, therefore, necessary to conserve and protect our environment. Following practices can be observed for protecting the environment.

- Rotation of crops and judicious use of fertilizers, intensive cropping, proper drainage and irrigation.
- Proper Sewage Treatment, to avoid pollution of rivers and other water bodies.
- Tree plantation campaign, setting up National parks and conservation of forests.
- Rain water harvesting, as a mandatory norm for house building.
- Disposal of waste after separating them into biodegradable and non- biodegradable waste material.
- Avoid unnecessary or wasteful packaging of products.
- Observe 5th June as a World Environment Day to create awareness amongst the people through media and organize various programs related environment protection.
- Never put any leftover chemicals, used oils down the drain, toilet or dump them on the ground or in water or burn them in the garden. If you do so, it will cause pollution.
- Use public transport wherever you can, or form a car pool for everyday travel.
- Send your waste oil, old batteries and used tyres to a garage for recycling or safe disposal

Pranav Yadav

Third Year Mech. Engg., Govt. Polytechnic, Murtizapur, Amravati



Soham Kulkarni

Theme of forthcoming issue of MSBTE newsletter makes us think of our social and environmental responsibilities. In today's era, our country India is a developing country, but our overall development is not balanced, i.e. cities are developing at much faster rate than rural areas. Polytechnics can provide knowledge to the rural students and also cultivate entrepreneurship qualities in them so that they

can start their own businesses and open new job opportunities for others. Polytechnics, which are known for hands on skills, can also encourage students to form their own groups and visit rural schools and colleges to conduct lectures and workshops to cultivate interest among students in the field of technology. Today, we Indians are leading the world when it comes to application of technology, but we are lagging in developing our own technologies. Polytechnics can promote the "Make in India" concept.

These days, we are facing many environment related problems because of burning of fossil fuels, deforestation, improper waste management, etc. Polytechnics are organizing different Conferences, Seminars, Awareness Programs, Paper Presentation Competitions, Project Competitions, etc. whose topics are related to environment protection. They can practically select some area of improper waste management (for example a small section of a dumping ground) and ask students to come up with practically implementable innovative ideas, provide them with expert guidance, and try experimenting those ideas in their chosen area. Once the area is cleaned, students can then think upon methods to prevent that area from becoming unclean again.

Soham Suyash Kulkarni

Third Year Industrial Engineering, V.P.M's Polytechnic, Thane.

Inspiring Success Stories of Diploma holders



Datta Ahir

I was born in Pune on 4th May, 1980. My father worked as a driver in the irrigation department. My mother is a homemaker. I am the eldest of four siblings. I have two sisters and a brother. All of my siblings are born deaf and dumb. I had a lot of interest in studies and school, ever since I was a child. I topped in my class every year. I was a volunteer of the RSS. At that tender age, Joshi

Sir from the RSS branch played a major role in my life. He gave me the appropriate guidance at the appropriate time and helped me become what I am today. Those were difficult days and to fulfill our household requirements, I used to work as a newspaper delivery boy in the morning. In the vacations, I used to work in the store & clinic.

I passed my SSC exams with good marks. Joshi Sir insisted me to take admission for diploma course. He showed me the path and encouraged me to aim at higher position in life. I was admitted to Diploma in Civil Engineering in Government Polytechnic, Pune. I was an average student in the college. In three years, I completed my diploma and also regularly participated actively in sports and cultural activities. I was the Captain of Hockey and Kabbadi team and we won various championships. I was fortunate enough to have good teachers while studying in Government Polytechnic. Fortunately, I got scholarship in school and college. Thus, my complete education was done with the help of scholarships. However, due to family conditions I could not study further after completing my diploma.

I passed out from Government Polytechnic, Pune in 1998. With the help of few references, I got a job worth Rs. 700 per month in a small firm, "Mohite Construction". I was very happy and used to travel on cycle. Inspite of the hardship, I learnt a lot during 6 months that I worked for them. Later on, I joined "Ghorpade Construction Company" which was a big firm but my job was monotonous. I was not able to learn the way I presumed. So I left that job despite the satisfactory salary and started working in a smaller firm. That exposure gave me a chance to gain more knowledge and experience. I worked there for three years and learnt substantially.

At that juncture, my life's main aim was to start and run my own business. However, to achieve that I required good experience and confidence. So from this perspective, I joined 'Gangotree Company' in Pirangut in 2001-02 as a 'Project Manager'. I was fortunate enough to be a part of a big project from the start to its completion. In that process, I had gained a firsthand experience of dealing with Clients, Architects, Consultants and Contractors and I was also involved in the Company billing. I handled such tasks single handedly. This project was completed within the deadline. This project improved my knowledge and boosted my confidence. I left my job and started my own company "Aakar Engineers and Developers." At that time, my firm consisted of only me and my office was my briefcase. A few months passed without any work but that could not break my ambition. I started with the work of constructing an "otta" followed by an opportunity to complete the flooring for the same society. I worked dedicatedly which in turn proved beneficial. I received an offer to build a house. It was my first building construction project but my hard work showcased my potentials. My project was highly appreciated and I was given more work offers. Since then, I never looked back in life.

I slowly started small and big projects in Paud, Pirangut, Mulshi, Lonavala, Undri, Hadapsar, Katraj, Panshet, Khadakwasla, Vashi, Panvel, Camp etc. My friend wondered how I could manage to do so many projects at the same time. I adopted a simple principle - Every site, no matter how big or small, must have a supervisor and instead of trying to get maximum profit from just one job I should get many projects done at the same time with an average profit. I call it "Working in Wholesale Funda". With a nil turnover to Rs.12 crore turnover is big leap for a person like me. Now, I am a builder and a developer with a new firm "Aakar Developers" and an office in Kothrud. Today, I am able to support many families.

Till date my company has finished over 100 small and large projects with 100% satisfied clients and work completed within deadlines. Today, I have 500 plus finished flats, in areas like Shirwal, Ahmednagar, Vellhe and Baner. Still more projects of my company are going on - 'Aakar Sterling' a 200 flats scheme at Shirwal, 'Sai Empire' a 112 Flats scheme at Shirwal and 'Sai Vrindavan' Farm

house plot project at Vellhe. My company also has various upcoming projects at Baner, Katraj and Ahmadnagar.

I have one message for budding entrepreneurs, it is important to set a goal so that one knows what one wants to achieve in his life. It is also important to set goals within a time frame and according to one's speed and capacity. This helps one to measure his own progress. For persons like me who do not have a business background or a support system, they can still be successful if they inculcate and develop intangible assets like good education and hard work. You can achieve anything with these assets. So keep dreaming and keep doing!

Datta Jagannath Ahire Aakar Developers, Pune



H.R. Jadhav

We live in an age of Science & Technology, in which people are more focused on transferring knowledge of establish system on electronic media. Students are busy in fulfilling their curriculum requirements with the best of their abilities. Parents are exposing their kids to globally competitive environment. Industries are also updating themselves very fast to cope up with the intensely competitive market. However, conditions were not that much favorable

about 20-25 years back. I think that was my one of the best decision, when I took admission for diploma in 1991, after completion of my S.S.C. At that time Shri Bhagubhai Mafatlal Polytechnic was one of the best polytechnics in Mumbai and I always feel proud to say that I am the student of this Institute. Institute was offering various diploma courses viz., Civil Engineering, Mechanical Engineering, Electronics Engineering, Industrial Electronics, Plastic Engineering, Chemical Engineering and Digital Electronics etc. Among them, I chose Plastic Engineering, which was again very unusual branch of Engineering. Whenever you want to prove yourself to be extraordinary in crowd, you need to run on a different track.

My polytechnic offered me all possible support to improve my knowledge and skills. I successfully completed my diploma in June 1994. But due to poor financial condition of my family, I didn't take admission to Degree College. I started my first job in Polyset Plastics Ltd, which was at MIDC, Andheri. I joined the company as production engineer and worked there for a year. As I felt that I need to move ahead to gain more professional and entrepreneurial skills, I joined "Infra India Ltd." as Marketing Executive afterwards. This company was manufacturing GPHIPS sheets, which are used to produce fencing, plastic film and thermoplastic coating of refrigerators. Plastic extrusion is a high volume manufacturing process in which raw plastic is melted and formed into a continuous profile. I learnt much more than my expectations from this company. But later on I started working with SCJ Plastic Ltd., as Technical Marketing Executive. SCJ is a basically manufacturer of Polyolefin master batch, Styrene, Additive, Wire and Cable, Polypropylene BCF, CF master batches as well as PVC Compounds and Thermoplastic Sheets. Mr. N.S. Ayare, who was the Technical Director of SCJ at time, has actually motivated me to work towards bright future in this industry.

In year 2000, with all my industrial experiences along with positive attitude, professional skills, technical knowledge and hands on experience, I started my own business. First step was trading and distribution of color master batches. As distribution is the process of making a product or service available for use of consumer or business, I learnt various elements of marketing which has three parts: Product, Pricing and Promotion. Now, I have two Business Ventures, namely 'Spectra Colortek' and 'Sairaj Polymers'. Whatever I have achieved till date, that is simply because of hard work and ethical business practices.

Last but not the least; I would like to convey one message to all students, that entrepreneurship is the need of our country. Entrepreneurship can be a risky affair since there is no guarantee that the business will work and the entrepreneur may end up losing money for first few years. But on other side, Entrepreneurship offers a chance to pursue our own interest with many financial and non-financial benefits. So, go ahead to strengthen our nation with various social goals.

MSBTE Workshop for Principals of Mumbai Polytechnics

MSBTE organized a "Workshop for Principals of Polytechnics of Mumbai Region" on 15th September 2015, with Vidyalankar Polytechnic being host for this event. It was conducted in state-of-art auditorium at Vidyalankar Campus at Wadala, in Central Mumbai. This workshop was well attended by over 250 participants from all across the Polytechnics in Mumbai Region.



MSBTE top officials in an interactive session with Principals

As we all know that "15th September" is commemorated as "Engineer's Day" throughout our country, this MSBTE workshop began by paying floral respect to Bharat Ratna Late Shri. Mokshagundam Visvesvaraya, at the hands of Dr. Abhay Wagh, Director, MSBTE, Dr. Vinod M Mohitkar, Secretary, MSBTE, Shri. V. D. Vaidya, Dy. Secretary, RBTE and Shri. Ashish Ukidve, Principal, Vidyalankar Polytechic. This was followed by felicitation of Dr. Abhay Wagh, by Shri. Vishwas Deshpande, Managing Trustee, Vidyalankar and Dr. V M Mohitkar by Shri. Milind Tadvalkar, Director, Vidyalankar. Shri. Vaidya, welcomed the participants on behalf of MSBTE and gave brief introduction about the planned proceedings of the workshop.

This was followed by informative and inspiring session by Dr. Abhay Wagh, about the 'New Initiatives' taken up by MSBTE in recent past. At the outset, Dr. Wagh spoke about the importance of MSBTE portal and website, for carrying out various online activities. He elaborated the details about MSBTE initiatives for imparting In-plant training for students in association with CII, Maharashtra State, and with BOAT

(Board of Apprentice Training). He also explained the Hub and Spoke Model where in the objective is to make the industry-polytechnic interaction more meaningful and effective. He also discussed about the Faculty Approval procedure. For improving the assimilation skills of Polytechnic students, Dr. Wagh informed participants about free of cost Spoken Tutorial Project by IIT, Bombay, which is funded by National Mission on Education through ICT, MHRD, Govt. of India. He also mentioned about Maharashtra Skill Development Center at Govt. Polytechnic, Ambad wherein 12 different courses are being run successfully. Dr. Wagh stressed the importance of academic monitoring and appealed to all participants to whole-heartedly contribute in the process of qualitative development of students, faculty and the institutes.

Dr. V M Mohitkar provided the details of existing statistics pertaining to RACs in Mumbai Region and elaborated the guidelines for improvement in quality of assessment. He also stated about expectations from the institutes to achieve the goal of "Zero Error RAC".

In the later half, different departments of MSBTE made presentations wherein they informed the participants about the latest initiatives started by their respective department. The workshop concluded with vote of thanks by Shri. B. V. Karhade, Astt. Secretary, RBTE Mumbai. He thanked all participating institutes and Vidyalankar Polytechnic in particular for facilitating and making the workshop a successful one.



Audience present during workshop for Polytechnic Principals of Mumbai

Carbon Footprint: Sources & Measures to Reduce



Prof. B A Damah

A carbon footprint is historically defined as "the total sets of greenhouse gas emissions caused by an organization, event, product or individual." It is difficult to calculate the total carbon footprint because of the large amount of data required and the fact that carbon dioxide can also be produced by natural occurrences. It is for this reason that a more practicable definition is used:

A measure of the total amount of carbon dioxide (CO2) and methane (CH4) emissions of a defined population, system or activity, considering all relevant sources, sinks and storage within the boundary of the population, system or activity of interest.

For simplicity of reporting, it is often expressed in terms of the amount of carbon dioxide, or its equivalent of other Green House Gases (GHGs) emitted.

The concept name of the carbon footprint originates from Anindita Mitra (CREA, Seattle), who chose the more easily calculated "carbon footprint" to measure the use of carbon, as an indicator of unsustainable energy use.

Sources of carbon footprint emissions

- Indirect sources, i.e. emissions that come from fuel burned to produce goods far away from the final consumer.
- Direct sources i.e. emissions which come from burning fuel directly by the consumer, (e.g. in one's car or stove).

Measuring carbon footprints

An individual, nation or organization's carbon footprint can be measured by undertaking a GHG emissions assessment or other

calculative activities denoted as carbon accounting. A systematic application of 13 calculation principles is determined as the best way to calculate individual / household carbon footprints.

Several free online carbon footprint calculators exist. These websites ask you to answer more or less detailed questions about your diet, transportation choices, home size, shopping and recreational activities, usage of electricity, heating, and heavy appliances such as dryers and refrigerators and so on. The website then estimates your carbon footprint based on your answers to these questions

Reducing Carbon footprints

Once the size of a carbon footprint is known, a strategy can be devised to reduce it.

Some of the most effective ways to decrease a carbon footprint are:

- To decrease the amount of energy needed for production
- To decrease the dependence on carbon emitting fuels.
- By technological developments
- Better process and product management
- Carbon offsetting -- the mitigation of carbon footprints through the development of alternative projects, such as solar or wind energy or reforestation

The main influences on carbon footprints include population, economic output and energy and carbon intensity of the economy. These factors are the main targets of individuals and businesses in order to decrease carbon footprints.

Prof. B A Damahe

MSBTE Officers Training at Lonavala

Two day training program for MSBTE Officers was conducted on the theme, 'Team Building' at Leadership Development Academy of L&T at Lonavala from 10th October 2015. The training was organized by L&T Institute of Technology, Mumbai. In all, 28 officers from all four regions of MSBTE attended the training program. The day started early morning at 6.30 am with Yoga exercises. The session began with a welcome note for the participants. Necessary safety instructions were given to participants by the coordinators. The training program was inaugurated



Dr. V.M. Mohitkar, Secretary, MSBTE addressing Officers during Inaugural Session

by Dr. V.M. Mohitkar, Secretary, MSBTE, by e-lamp lighting. He spoke about the purpose and motive behind organizing this training. Mr. V. R. Jadhav, Dy. Secretary, MSBTE explained how efforts towards team building will help in improving the MSBTE activities.

Mr. B. A. Damahe, Principal, L&T Institute of Technology, formally introduced Ms. Aditi Manjure Singhal, Corporate Trainer - Technical, of L&T Ltd. to participants. The first session began with an innovative introduction task where participants were asked to write the most apt adjective before their names and share with others. Participants came out with various adjectives and it helped them open up as a group for the day. The second activity was dialoguing and consensus building. This activity comprised of tools for conducting healthy discussions and improving listening skills, especially during the meetings. Showing relevant small videos, which reinforced the topic, also supported the various sessions. The senior officials shared and discussed initiatives taken by them to motivate the team members in their respective departments. This added the extra dimension of learning from the participants during the training.

The post lunch session was a challenge to lower the hula hoop as a team. It had a lot of learning attached to it like strengths and weaknesses of



Ms Aditi Manjure Singhal, Corporate Trainer, conducting a session during program

the team members, if used effectively, leads to success of the team. In the next activity, participants played the game - Rabbit, Arrow and Wall - where two opponent teams were formed and the one with better strategy, communication and implementation than the other team won the game. MSBTE officers played and enjoyed the activity.

The most liked session was the 'Appreciation Book' consisting words of appreciation by others. All the participants were requested to write a line of appreciation for any other member on a sticker. They personally gave the appreciations to the other members. This was a take away book of appreciation for each one of them. The smile of admiration on the face of participants adequately spoke about the success of this activity.

The training ended with a feeling of togetherness on the note of 'Mile sur mera tumhara....'by legends. National song was played before all dispersed.



Group photograph of MSBTE Officers along with Trainer

Faculty Speak on theme (Contd.)



Prof. B.V. Gaval

Polytechnic is an Educational System based on imparting technical knowledge and skills knowhow. These are different from the conventional and traditional universities in various aspects. As the manufacturing and service industries evolved over the years, the polytechnics met their manpower needs quite satisfactorily. These gave polytechnic the recognition and appreciation in society with

focus on diploma courses. Polytechnics have fulfilled the Certifications requirements of needy young persons from the society, who have limited finance and resources.

Polytechnics have large variety of courses best suited for different segments of society. Certain polytechnics have special focus segments also, for e.g. Women's Polytechnics have the courses more suited for girls and ladies and Agro Polytechnics focus on developing person for agriculture field. Such designs of courses & curriculum are difficult to implement in conventional universities. Polytechnic courses are also catering to the needs of environmental constraints and limitations. The subjects and courses on the environmental awareness and studies are being taught to the students of polytechnics. With the flexibility and ability to design & modify courses with the needs of times, it is sure that Polytechnics will more prominently contribute in the development of society and environment in the near future.

Prof. B.V. Gavali Vice- Principal, HOD (E & TC) K.K.Wagh Polytechnic, Nashik



Prof D.V. Loha

As polytechnics have now reached the nook and corners of rural areas, there is large scope to involve students and staff of polytechnic for development of society and environment. Some points, which have come out through discussion among staff members, are as follows:

Most of the pass outs are job oriented and seek government and private sector jobs. However, instead we may encourage them to adopt hybrid

engineering concept in which civil, electronics, mechanical and computer engineers may start small projects which may help the agricultural sector for rural development. For example, computer controlled irrigation system for agricultural application in which civil engineers will develop hydraulic system along with mechanical engineers, the flow control of water, pesticides as per type of plant may be controlled through microcontroller circuits and automation with latest products can be done through computer systems. (Synthesis)

- ➤ Nearby polytechnics in rural areas should conduct sessions to know needs of the society particularly that are related to energy management, water management, waste management, etc.
- ➤ Conduction of awareness campaign about Solar Equipments, Wind Mills, Bio-gas Plants, Pollution Control, etc. should be made compulsory for every polytechnic in winter and summer vacations.
- ➤ Government should sponsor some development projects in rural area through joint collaboration of ITIs, Polytechnics and Engineering Colleges.

Prof. D.V. Lohar Head of Dept. (Mech.Engg) Shri. H.H.J.B. Polytechnic, Chandwad, Nasik

Techno buzz

China to Open its First Highway Built with Construction Waste

A number of different wastes including scrap tyres, glass, blast furnace slag, steel slag, plastics, etc. have been investigated in Europe, the U.S. and Canada to assess their potential for use as different road construction materials. The results indicate that there is a high potential for the use of these materials; performance is not compromised when used according to specifications and that costs can be reduced. In New Zealand, research is currently underway to examine the potential for use of some locally available wastes in



road construction. The results, to date, indicate that there is a wide scope for use of such materials. Meanwhile, research on suitability, economics and availability of materials is still required. However, China is poised to open its first express highway built with construction waste, showcasing a new way to make use of the material which

otherwise ends up as garbage.

An expressway with much of its roadbed built from construction waste will open to traffic in northwest China's Shaanxi Province in November 2015. With a designed speed of 120 km per hour, the 122-km expressway links Lintong District with Huxian County under the provincial capital of Xi'an. The expressway is the first in China to use construction waste as building material for the roadbed. A total of 5.7 million tonnes of construction waste was used to build the expressway, with an average of 46,700 tones used in each kilometer. That amount of garbage usually requires about 200 hectares of land to bury.

Compared with traditional building materials, construction waste is stronger and more stable, but it is difficult to separate and extract useful materials such as steel bars and bricks from the garbage, and special equipment has been developed for garbage separation. A 24 ha area of landfill was cleared and over 46 ha of land has been saved from excavation. The use of recycled waste has helped the project avoid using 3.4 million cubic meters of sand and 32,000 tones of coal. The land saved has created about 300 million yuan (Rs. 3100 crores) in economic benefits.

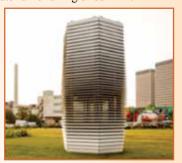
Smog Free Tower: World's largest air purifier

More than half of the human population knows what is pollution, but we are still not ready to face its damaging consequences. Pollution is not only limited to water, soil and noise but has extended to light, visual, point and non-point sources. Human beings and their actions are majorly responsible for causing all types of pollution. Air pollution is one of the biggest issues, which arises from burning of fossil fuels, hydraulic fracturing and gases emitted by vehicles.

There's a massive vacuum cleaner in the middle of a Rotterdam park and it's sucking all the smog out of the air. It's probably more accurate to describe it as the world's largest air purifier. It is called as, The Smog Free Tower. It is a collaboration between Dutch designer Daan Roosegaarde, Delft Technology University researcher Bob Ursem, and European Nano Solutions, a green tech company in the Netherlands. The metal tower, nearly 23 feet tall, can purify up to 1 million cubic feet of air every hour. To put that in perspective, the Smog Free Tower would need just 10 hours to purify enough air to fill Madison Square Garden. It does this by ionizing airborne smog particles. Particles smaller than 10 micrometers in diameter are tiny enough to inhale and can be harmful to the heart and lungs. Ursem, who has been researching ionization since the early 2000s, says a radial ventilation system at the top of the tower (powered by wind

energy) draws in dirty air, which enters a chamber where particles smaller than 15 micrometers are given a positive charge. Like iron shavings drawn to a magnet, the positively charged particles attach themselves to a grounded counter electrode in the chamber. The clean air is then expelled through vents in the lower part of the tower, surrounding the structure in a bubble of clean air. Ursem notes that this process doesn't produce ozone, like many other ionic air purifiers, because the particles are charged with positive voltage rather than a negative. The dust removed is compressed and sealed within a resin cube and used as a decorative material for a ring or cufflink.

Ursem himself has used the same technique in hospital purification systems, parking garages, and along roadsides. Roosegaarde has plans to take the tower on a "smog-free tour" in the coming year so that can demonstrate the tower's abilities in different cities around the world including Mumbai and Beijing. *****



Engaged to tech: Simply wave to pay with this ring

Now you can leave your wallets, purses and smart watches at home and still pay for the stuff with a gesture. If your wallet weighs you down, you might want to try a smart ring. That is the view of Philip Campbell, founder of London-based startup Kerv, whose firm has produced a smooth, shiny piece of wearable tech that aims to tap into the growing market for contactless payments. The Kerv ring uses Near Field Communication (NFC) to let users make payments of up to Rs.



3000 (£30 or \$46) by simply waving your hand at shop checkouts and public transport barriers, much like contactless credit or debit cards. Kerv is not the only wearable device with payment functionality -NFC-enabled smart watches like Apple Watch and wristbands like Barclaycard's B Pay also let you pay or goods -but it is the first payment ring.

Campbell began building the Kerv ring while running a marketing agency that serves the payments industry. The idea was spurred by the fact that most of Europe will accept contactless payments by 2020. The Kerv ring works by itself doesn't need to pair with a smart phone to make a payment. It also doesn't required to be charged and one can set restrictions using app. Users need to set up an account with Kerv to use it as a digital wallet - much like pre-pay credit cards. Kery takes a small fee with each transaction, paid by the merchant - and it's accepted wherever MasterCard is. You can use Kerv ring anywhere in the world that displays the contactless payment symbol. Looks-wise, the accessory is simple and sleek, made from Zirconia the same material used to craft ceramic dental crowns. The material was chosen because it doesn't interfere with the small electromagnetic field that powers the contactless functionality; it's also waterproof, hypoallergenic, scratch-resistant, and comes in a range of sizes. The inside surface is an inert hard resin forming waterproof seal over components. Although, perhaps its biggest selling point is that it doesn't run out of charge. ****

Institutional News: Students



Inauguration Session of Technofest-2015 in progress

Department of Information Technology of Government Polytechnic, Jalgaon organized an Institute level event "Technofest-2015" for the students of all branches on 4th and 5th September 2015. The event consisted of five competitions viz Brain Test, Poster Presentation, Mad Adz, Chess and Code Sense. More than 600 students from all branches participated in this event.



Dr. Shrikant Deshmukh sharing his ideas with the audience

CSMSS College of Polytechnic, Kanchanwadi, Aurangabad conducted 'Digital India Week' program on 6th July 2015. Chief Guest of the program was Hon. Dr. Shrikant Deshmukh, Administrative Officer, CSMS Sanstha. He shared his ideas on the importance and need of Digitization of all the sectors with the audience. On this occasion Dr. Ulhas Shinde, Principal, Chh.Shahu Engineering, Dr. S.C. Bhoyar, Dean, CSMSS Dental College & Hospital & Principal Shri. Ganesh B. Dongre were specially present.



Faculty, & Students taking "Sadbhavana Day Pledge"

"Sadbhavana Diwas" was celebrated at S.H.H.J.B. Polytechnic, Chandwad. The program was undertaken as per the guidelines from AICTE on 20th August 2015. Faculty, & Students took "Sadbhavana Day Pledge" to mark this occasion.



Dr. M.N.Qureshi, Principal, Mr. Nikhil Koli, Chief Coach, Pharma Career Compass & Miss. Riddhika Raiyarela, Marketing Manager on dias.

AIT's Institute of Pharmacy, Malegaon, conducted Career Guidance Program in collaboration with Mumbai based PharmaCareerCompass on 19th September, 2015. The program involved lecture by Mr. Nikhil Koli, Chief Coach, PharmaCareerCompass and various Audio Visual Films, which helped the Students to understand latest happenings in Indian Pharma Industry. On this occasion, Dr M.N.Qureshi, Principal, emphasized the need, for today's Pharmacy Students to look beyond the routine jobs which are becoming scarce day by day.



Prof. B.V. Gavali felicitating experts from PROLIFIC Systems Ltd.

To convert the dream of skilled India into reality, Department of Electronics and Telecommunication of K. K. Wagh Polytechnic, Nashik conducted four days training program on Industrial Automation Product (PLC, SCADA) under NSDC from 31st July to 3rd August, 2015. More than 60 students participated in this workshop. During the workshop, students gained practical knowledge of architecture of PLCs, Sensors, Communication Protocols & their programming.



Prof. N.G. Nikam, Principal, addressing students

In an effort to educate students about Industrial Safety, Padmashri Dr. Vitthalrao Vikhe Patil Institute of Technology & Engineering (Polytechnic), Loni, Ahmednagar, organized a training session of Mr. Sharad Magar, Plant Head, Melting & Atomization & Mr. Shubhranshu Panda, Plant Head, Annealing, Hoganas India Pvt. Ltd., Ahmednagar on 19th August, 2015. More than 200 students participated in this event.



Prof. D. N. Bhange, coordinator CEDP expressing his views during three days workshop

A three days workshop on "Embedded System Design using Arduino" was organised by Electronics & Communication Engineering Department of Government Polytechnic, Arvi during 18th to 20th September 2015. Near about 33 beneficiary students of final year diploma course in Electronics and Communication Engineering had participated in this workshop. Prof. P.B. Jain inaugurated the program.



Blood donation in progress at M.E.T. Institute of Pharmacy

On 24th August 2015, MET Institute of Pharmacy, Bandra, organized a Blood Donation Camp at MET campus. It was executed by the members of Sarvodaya Hospital, Ghatkopar. The students of S.Y.D. Pharm provided helping hand to carry out event smoothly. About 89 donors, from all departments of MET helped this great cause by donating blood.

Institutional News: Faculty



Group Photograph of faculty of Manay School of Polytechnic on Teachers Day Tree Plantation program was organized on the occasion of 'Teachers Day' at Manay Kalyan Charitable Trust's, Manay School of Polytechnic, Vyala, Akola on 5th Sept. 2015. The students felicitated the Faculty and Staff on this occassion. Principal, faculties and students of the Institute have shared their views at this juncture.



Shri. A P Ghormode being felicitated on the occasion of Teachers Day

Shri. A.P .Ghormode, Head of Electrical Engg Department Founder In-Charge Principal of Government Polytechnic, Murtizapur, was felicitated on the occasion of Teachers Day on 5th Sept. 2015 on his retirement. Shri S.R.Thute, Principal, chaired the program. Shri. A.P. Ghormode has imparted valuable thoughts and cited examples of successful personalities while sharing life experiences with the students.



Faculty with Principal Prof. N. G. Nikam, during visit to Volkswagen India Ltd. As a part of the Industry-Institute Interaction, seven faculty members of Padmashri Dr. Vitthalrao Vikhe Patil Instt. of Tech. & Engg. (Polytechnic), Loni, Ahmednagar visited Tata Motors Ltd., Pimpri, Pune & Volkswagen India Pvt. Ltd., Mhalunge, Chakan, Pune, on 13th August 2015.



Dignitaries present on dais during inauguration of BOAT Awareness Program

Thakur Polytechnic, Mumbai, had organized MSBTE & BOAT sponsored 2 days program on 'Awareness about BOAT, Career Guidance & Entrepreneurship Development' on 1 & 2 September 2015 in which 18 TPOs & Faculties from various polytechnics from Mumbai Region along with around 250 students participated. The Chief Guest was Dr. S M S Shashidhara, Deputy Secretary, MSBTE.



Prof. Yuvraj Chauhan, Lecturer, Plastic & Polymer, Government Polytechnic, Miraj, presented a paper entitled "POLYFUEL - Thermolysis of waste plastics to produce liquid fuel" at All India Seminar on Polymer Processing, Reclamation and its End-of-Life Impact on Environment, Aug. 21-22, 2015, organized

by The Institution of Engineers, Gujarat Centre, Ahmedabad.



Shri. Nitin Agarwal being felicitated for delivering expert lecture

Agnel Polytechnic, Vashi, celebrated "Teachers Day" with "Digital Programme" on 5th Sept 2015. Mr. Nitin Agarwal, Principal Consultant of Accenture India Ltd. was the chief guest for the program. In his informative session, he shared that 'Digital India' program of government is centered on three key vision areas – Digital infrastructure as a core utility to every citizen, Digital empowerment of citizens, Governance and services on demand.



Group Photograph of participating faculty at Training by All India Radio

MSBTE organized five days training program at All India Radio (Prasar Bharti), Shivaji Nagar, Pune from 27th to 31st July 2015 in which 48 faculties from various polytechnics participated. The training covered aspects of Analog & Digital Transmission for both TV and Radio Transmission. Training included visit at AIR Pune Kendra, TV Studio, Digital TV transmitter DVB-T2 etc.

Awarded Ph.D.



Dr. (Mrs.) Geetali Ingawale, a Senior Lecturer in Chemistry at V. P. M's Polytechnic, Thane has been awarded Ph.D. degree in Chemistry on the topic "Lantadene: Nano informatics approach towards Chemotherapy of life" by J. J. T. University, Rajasthan, under the guidance of Dr. (Mrs.) Anita Goswami Giri.



Dr. Bhavesh Patel, Principal, Shah & Anchor Kutchhi Polytechnic, Mumbai has been recently awarded Ph.D. by Sant Gadge Baba Amravati University. He carried out research on "Secure Retrieval Intelligent Engine of Video Data using Data Mining" under the guidance of Dr. B. B. Meshram, VJTI, Mumbai.

Papers Published



Mrs. Shruti Karkare and Mr. Surendar Rawat from VES Polytechnic, Chembur, Mumbai have jointly published two papers. One published on "The Role of Accreditation in Enhancing Quality of Technical Education"



in 44th ISTE National Annual Convention;

Organized by College of Engineering, Trivandrum, page 68-72. They also published another paper on "An Empirical Study on Assessment of CO Attainment for a Diploma Course"; in Journal of Electronics and Communication Engineering & Technology (IJECET), ISSN 0976 - 6464(Print), ISSN 0976 - 6472(Online), (impact factor 7.98), Volume 6, Issue 2, Feb. (2015), pp. 06-12.

18th Convocation at Govt. Polytechnic, Aurangabad



18th Convocation Program was held at Government Polytechnic, Aurangabad on 9th Sept. 2015. Hon. Shri. Achyut Godbole, Writer and Director at Soft Excel Industries was invited as Chief Guest for the convocation. Shri Mahesh Shivankar, Jt. Director, Aurangabad, was also present for the ceremony.

LARSEN & TOUBRO: Responding to Tomorrow's Needs



fuel prices.

Today, India is the fourth largest consumer of energy in the world. But the country doesn't have abundant energy resources to meet this demand. Most of Indian energy needs are either met by available domestic resources like fossil fuels, nuclear, hydro and other renewable sources and a substantial portion is supplemented by energy imports. Imported energy is an expensive proposition owing to current energy and

Addressing this, Larsen & Toubro (L&T) as a major Technology, Engineering, Construction and Manufacturing Company is committed to providing energy efficient solution to its customers, while improving its own energy footprints. L&T has adopted a variety of energy efficient initiatives like Energy Conservation and Green House Gas reduction towards energy efficiency.

In last three years, the company had achieved 79 % increase in energy conservation by giving thrust to energy conservation initiatives. We have been promoting initiatives and interventions related to process

design, operational control and efficiency, conversion and retrofitting of equipment, changes in lighting systems and changes in personal behavior so that we can efficiently use energy.

We are also actively looking at renewable energy, which contributes, to more than 8 % of our total indirect mix within campuses. energy Additionally, we have harvested



Solar panels power street light in L & T Campuses

1.5 Million Units of Solar Energy at our 13 campuses. L&T has also installed wind farm of capacity 8.7 MW that primarily has become one of the important renewable power source for our establishments Green Building constructed by L & T in one of its campus in Tamil Nadu. Four of



our campuses have also utilized 7000 CuM of biogas by substituting natural gas used for cooking.

Besides being conscious of our usage of energy, we are also offering products towards reducing energy requirements of our customers. We have developed green products and services portfolio for offering energy efficient, environment friendly, cost effective, state- of- the-art technological solutions to customers based in more than 30 countries. Our Green Products and Services Portfolio consists of construction of Green Buildings, Solar EPC, Efficient Power Transmission & Distribution System, Supercritical Thermal Power Plant Equipment, Efficient Coal Gasifiers and Energy Efficient Electrical & Automation Solutions. We have also developed expertise in construction of green

As a responsible corporate citizen, L&T recognizes the urgency to address 'energy conservation' as a way of life. We continue to focus on activities that will promote energy saving while offering support to our customers in their pursuit of low carbon growth!

Mr. PS Malik,

General Manager & Head of CSR, L&T, Mumbai

Tree Plantation Drive at G. P., Mumbai



Student and Official of Axis Bank planting sapling of tree in the presence of Dr. H.P.Taskar

Showing their deep concern towards the degrading greenery in Mumbai and to create greater awareness the young citizens environment preservation, authorities of Bandra Branch of Axis Bank organized a tree plantation program at Government Polytechnic, Mumbai on 21st 2015. The Civil September Engineering students of institute volunteered themselves to be a part of this noble cause and planted several tree saplings in the campus of their Institute in the presence of a Senior Official of Axis bank, Dr. H.P.Taskar, Principal, and Mr. R. P. Barhate, Head of Civil Engineering

Department, GP, Mumbai. The students also pledged to continue such activities in future.

Institutional News : Students (contd.)



Winners of State level Technical Paper Presentation Competition receiving prize from Chief Guest

ISTE Chapter of Electrical Power System Department (EPS) of V.P.M's Polytechnic, Thane, celebrated 'Renewable Energy Day' by conducting 10th State Level Technical Paper Presentation Competitions on 21st August 2015. The theme of the program was Renewable Energy, Energy Conservation & Waste Management & Environment. Total 44 papers were received from 19 polytechnics of Maharashtra.

Green Innovations by Engineering Students







Cooling Pad assembled by Students

MGM's Polytechnic, Aurangabad has recently organized a 'Hardware Gallary' program in which students of its third year diploma displayed cooling pad which was having automatic speed adjustable Cooling fan which an be used for the laptop & PC's. For making this hardware, they used different waste hardware materials, lying unused.



Mr. Mahesh Shivankarji addressing students and parents

Mr. Mahesh Shivankar, Jt. Director of DTE, Aurangabad, visited Bharat Ratna Lata Mangeshkar Polytechnic, Latur, as Chief Guest of 'Fresher's Party and Parents Meet' held on 27th July 2015. Hon Shri. Valande Guruji, President of Sanstha, welcomed him. While addressing students and parents, Mr. Shivankar said that engineering is nothing but problem solving with the aim to make human life more comfortable. One need strong desire, positive attitude and energy to succeed in life. Shri Valande Guruji stated the need of an independent university for technical education in Maharashtra to enhance its quality.

MSBTE's Technical Paper Presentation Competitions 2015

Walchand College of Engg, Sangli

For Electronics Engineering Group on 7th October 2015



Winners of Paper Presentation Competition for Electronics Engineering Group along with Chief Guest and judges

V.P.M's Polytechnic, Thane

For Electrical Engineering Group on 8th October, 2015



Winners of Paper Presentation Competition for Electrical Engineering Group receiving prize from Chief Guest

Mahatma Education Society's Pillai HOC Polytechnic, Rasayani For Civil Engineering Branch on 3rd October 2015



Winners of Paper Presentation Competition for Civil Engineering along with the judges

JSPM's Dr.N.P.Hirani Institute of Polytechnic, Pusad, Yavatmal For All Branches on 5th October, 2015



Winners of Paper Presentation Competition receiving prize from Chief Guest

Government Polytechnic, Aurangabad



Winners of Paper Presentation Competition for Computer Engineering Group along with organisers and judges

Pimpri Chinchwad Edu. Trust's Pimpri Chinchwad Polytechnic, Pune For Automobile Engineering on 5th October, 2015



Winners of Paper Presentation Competition for Automobile Engineering with event organisers and Chief Guest

Government Residential Women's Polytechnic, Yavatmal For Electronics Engineering Group on 7th October 2015



Winners of Paper Presentation Competition for Electronics Engineering Group receiving prize from Chief Guest

Guru Gobind Singh Polytechnic, Nashik For Civil Engineering Group on 3rd October 2015



Winners of Paper Presentation Competition for Civil Engineering Group along with Principal and Guests

ISTE Global Summit on 'Engineering Education - Current Scenario & Future Prospects'

Directorate of Technical Education & MSBTE participated in First Indian Engineering Deans Council Global Summit on "Engineering Education - Current Scenario & Future Prospects" held at GRT Grand Convention Centre, Chennai on 31st July & 1st August, 2015. The Summit was inaugurated by Padmashree Dr. D.Y. Patil, Former Governor, Tripura, Bihar & West Bengal and Founder President, D.Y. Patil Group of Institutions. The Chief Guest of the program was Dr. Anil D. Sahasrabudhe, Chairman, All India Council for Technical Education, New Delhi. During technical sessions, Dr. Subhash K. Mahajan, Director, DTE, Maharashtra, and Dr. Abhay Wagh, Director, MSBTE, Mumbai, participated as eminent speakers on theme of the session.



Dr. D.Y. Patil interacting with Dr. Subhash K Mahajan & Dr. Abhay
Wagh after the inauguration of the Summit



Dr. Subhash K Mahajan being felicitated by ISTE Office bearers during technical session



Dr. Subhash K Mahajan addressing participants during technical session comprising of national & international experts



Dr. Abhay Wagh making his presentation during technical session where he was expert speaker

FEEDBACK...

I am very happy to congratulate and appreciate MSBTE for publishing quarterly Newsletter. MSBTE has taken a good initiative of bringing the Newsletter into the notice of all the academic scholars and students in the field of technical education. There is a crucial role of MSBTE in planning of activities, design & development of curriculum, organizing various technical trainings, workshops & seminars and competitions for the students, management of overall activities and also their successful implementation. The Newsletter helps not only the faculty but also students and entrepreneurs in updating their knowledge in different arena. It is indeed a dynamic platform where in the faculty as well as students can express their talent. I would request MSBTE to make this task more student centric and focus on the best practices for upgrading practical knowledge of the students in accordance with the need & demand of industry. I wish all the best to the MSBTE editorial team for the genuine efforts to publish the Newsletter.

Prof. Ganesh. B. Dongre, Principal, CSMSS College of Polytechnic, Aurangabad.

MSBTE newsletter provides information on various events being organized at various Polytechnics in the State of Maharashtra, which is worth appreciating. I must offer my sincere thanks to newsletter team for their uphill struggle for publishing informative newsletters at every quarter. It is my request to the Board to promote this activity not only across the country but also to the Polytechnics located abroad. I am aware of its web edition. But it is proved that there is no solution to the print media. The print quality, contents & theme of every issue is remarkable. It's my sincere request to the office bearers of News Letter to include couple of more pages and provide a platform to students and staff for sharing their research ideas.

Prof. R. K. Parghane, Lecturer in Civil Engg (Sel. Grade), Govt. Polytechnic, Arvi.

I heartily congratulate Honorable Director of MSBTE, Dr. Abhay Wagh and entire team of MSBTE for doing excellent work for improvement of quality of technical education through 360° involvement of all stakeholders. The MSBTE News letter is a really good initiative started by MSBTE and it gives an opportunity to share the various good events and activities conducted by various institutes. The articles in the newsletter are knowledge worthy. The theme of each newsletter is brainstorming and it publishes views of various experts from industry and academia including views of students. Taking inspiration from MSBTE, Mechanical Engineering department of our polytechnic has started publishing Newsletter on monthly basis. In that we include brief news along with photographs of various events like social & industrial visits, personality development programs, expert lectures, achievement of students and staff, etc. happening during the month.

Prof. D. V. Lohar, Head of Dept. (Mech.Engg) Shri.H.H.J.B.Polytechnic, Nasik

The responsibility of the authenticity of the information in this Newsletter lies with the author. Views expressed by the authors are solely theirs; they are neither the views of MSBTE nor are they endorsed by MSBTE. Queries, comments, feedback and information may be sent to newsletter@msbte.com

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