



IEI NEWS

The Institution of Engineers (India)

U.P. State Centre

"99 Years of Relentless Journey Towards Engineering Advancement for Nation Building"

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CHAIRMAN' DESK



Dear Fellow Engineers

I feel pleasure while expressing my gratitude for your cooperation and also congratulate to you all for success of all the activities with a One Day Seminar on 'Machine Learning with Applications to Society' on 7th April 2019, Lecture Meeting on 'Water Resources: Development and its Challenges' on 21st April 2019, 'Workshop on Joint Pain Management' on 28th April 2019, All India Seminar on 'Sustainable Solutions on Road Safety' May 4-5, 2019, World Telecommunication & Society Information Day on 17th May 2019, World Environment Day on 5th June 2019, Lecture on 'Vedic Math' on 28th June 2019.

Friends, this year is the centenary year of IE(I) as the Institution was established in Sept. 1920. All India Centenary celebration are being held at Chennai on 13th & 14th Sept. 2019.

In the centenary year more and more technical activities are being planned. Active participants from all the members is solicited.

Er R. K. Trivedi, FIE
Chairman

FORTHCOMING EVENTS AT IEI, U.P. STATE CENTRE

Sl.No.	Date	Event
1.	July 13/14, 2019	All India Seminar on 'Energy Efficient Design of Buildings with Special Reference to Energy Conservation Buildings Code (ECBC)
2.	July 19, 2019	Technical Lecture on "Construction of Underground Tunnel in Lucknow Metro - An Overview" by Er. Ananth Kumar, Project Engineer, Lucknow Metro Rail Corporation (LMRC)

3.	July 26, 2019	Technical Lecture on 'Rain Water Harvesting' by Er. Pritik Ranjan Chaurasia, FIE, Ex HOD Minor Irrigation Deptt.
4.	Aug 04, 2019	Seminar on 'Advance Processing Technologies in Chemical Industries'
5.	Aug. 15, 2019	Independence Day
6.	Sept. 09, 2019	Royal Charter Day
7.	Sep. 15, 2019	52nd Engineers' Day

REPORT ON ONE DAY SEMINAR ON 'MACHINE LEARNING WITH APPLICATIONS TO SECURITY'

A Seminar on "Machine Learning with applications to Security" was held by The Institution of Engineers (India), UP State Centre, Lucknow on 7th April 2019 under convenership of Prof. K. V. Arya, SCC member from Computer Division. The Seminar was attended by delegates from various Engineering Colleges and members of IEI.



A view of Dias

Amongst other Er. V B Singh, FIE, Council Member, Dr. Raghuvir Kumar, FIE, S C C Member, Director General, B.N. College of Engineering & Technology, Lucknow and Prof. Bharat Singh, FIE, Immediate Past Chairman and Director General (TECH), School of Management Science also attended the Seminar. Prof. S.K. Tripathi, Head Computer Science & Engg. Department, IET was the Chief Guest. Prof. Tripathi explained how Machine

Learning is useful in weather forecast, saving crops from Natural disaster and other various fields.

In all 5 technical papers were presented in the Seminar, main speakers were Prof (Dr) K.V. Arya, FIE, Prof. M.K. Dutta, from Centre for Advanced Studies, Dr. APJ Abdul Kalam Technical University, Lucknow, Dr. Praveen Shukla from BBD NIT, Lucknow, Dr. Arunima Verma, IET, Lucknow and Prof. Mithilesh Yadav, from BN College of Engg. & Technology.

Earlier Er. R.K. Trivedi, FIE, Chairman, U.P. State Centre welcomed the guests, The programme ended with Vote of thanks by Honorary Secretary, Er. Prabhat Kiran Chaurasia, FIE.

LECTURE ON 'WATER RESOURCES: DEVELOPMENT AND ITS CHALLENGES'

A technical talk on 'Water Resources: Development and its Challenges' was delivered by Er Jay Vilash, (Retd.) Chief Engineer, Irrigation Deptt. U.P. on 21/04/2019 at UP State Centre of IET.



Speaker Deliver the talk

He told the gathering about water resources availability in India is as follows:-

On an average, India annually receives about 4000 BCM of water in the form of rainfall through monsoon and in rest months of the year in different forms. Available data are as follow:-

Total precipitation	: 4000 BCM
Total water availability	: 1869 BCM
Total utilizable water	: 1123 BCM
Surface water	: 690 BCM
Ground water	: 433 BCM

While dealing with development of Water resources in India, he elaborated that Since man requires water to survive, so throughout the period of evolution man started living near rivers and lakes. In early period man was dependent only on hunting for food. Later learned the art of cultivation of the soil for food, realizing that water is absolute necessity for crops. To minimize the dependency on rains he developed various forms of irrigation. It is also evident from the ancient history that irrigation systems in India were in use in Indus valley Civilization around 4500 BC with remains of drainage and sewers.

The British Government built significant numbers of Canals and other irrigation systems in UP, Punjab and all other provinces of British India, by 1947 irrigated area had increased upto 22 million hectares (Mha). The irrigation covered crop area by 1995 had increased to 90 Mha as a result of planned development of Water resources during this year. Since UP has many old irrigation systems, improving water management in the old public irrigation systems is an important problem for UP. It is recommended that all old stabilized irrigation/Water projects in UP be subject to a performance review.

WORKSHOP ON 'JOINT PAIN MANAGEMENT'

A Workshop on 'Joint Pain Management' was organized at the Institution of Engineers (India), U.P. State Centre in association with Bhartiya Varishtha Nagarik Samiti (BHAVANA) on 28-4-2019.



A view of lighting the lamp

Dr. Sourav Shukla, Senior Consultant and Orthopaedics Surgeon, addressed the large gathering. He gave a brief overview of osteoarthritis as well as rheumatoid arthritis that can affect and damage any joint in one's body, the disorder most commonly affecting one's hands, knees, hips etc. He specially concentrated his talk to knee joints and said that the fluid between the joints which acts as cushion while movement of joint gets reduced due to many factors e.g. age, diabetes, injury and other causes and as a result the bones on both sides of joint rub with each other, causing

low to severe pain and later it becomes difficult to even walk or move. Dr. Shukla illustrated that osteoarthritis manifests tenderness, loss of flexibility, grating sensation and/or bone spurs in the affected joints.

Dr. Gaurav, a Physiotherapist and team member, demonstrated the exercises which are useful for maintaining good health of various joints of one's body.

In the beginning Er. R.K. Trivedi, FIE Chairman, IE(I), U.P. State Centre welcomed the guests and Er. V.K. Shukla, President Bhavana inaugurated the function by lighting of lamp, in the end Er. Prabhat Kiran Chaurasia, FIE gave a vote of thanks.

REPORT ON ALL INDIA SEMINAR ON 'SUSTAINABLE SOLUTIONS ON ROAD SAFETY'

An all India Seminar on 'Sustainable Solutions on Road Safety' was organized by UP State Centre on 4-5 May 2019. The Seminar was inaugurated by Er R. C. Baranwal, Engineer-in-Chief (Roads) UPPWD, who in his address emphasized on road safety with the comparison of data between 1971-2019 he elaborated about the temporary and permanent measures to bring down the road accidents.



Chief Guest lighting the lamp

Guest of Honour on the occasion was Mr Ganga Phal, Additional Transport Commissioner (Safety), Govt. of UP, who told that 80% of the accidents occur due to drivers negligence, he emphasized that to minimize the accidents (i) Short term measures (ii) Medium term measures (iii) Long term measures should be adopted.

Keynote Speaker Er Abdul Basit, Regional Officer NHAI told the gathering that black spot on the road should be identified and short term measures/Long term measures should be taken to rectify them. Black spots are defined in stretch of about 500mtr. Length in which either five road accidents including fatalities/grievous injuries took place during the last three calendar years or ten fatalities during last three calendar year.

Short term measures which include installation of road Signs, Road markings, speed reduction measures and repair of damages causing unsafe condition on the highway, should be taken up immediately and completed within three months of identification of road

accidents black spot. Long term measures are grade separated structures and other measures after execution of short term and long term measures accidents data for next three year should be obtained from police department and if accidents /fatalities are reduced only then a black spot should be declared rectified.

Earlier Er R.K. Trivedi, Chairman, The Institution of Engineers (India), UP State Centre welcomed the guests . On this occasion Prof. M. Z. Khan, Ex Vice Chancellor of HBTI Kanpur, Er A. K. Gupta, Ex Member UP Public Service Commission and Retd. Engineer-in-Chief UP PWD and Er V B Singh, Chairman, Civil Engineering Board, IEI also expressed their views on the subject. In the end Er. Prabhat Kiran Chaurasia, Hony. Secretary gave vote of thanks. Er. Masarrat Noor Khan, Former Managing Director, UP Bridge Corporation and Member Civil SCC was the convener of the event. In all 13 papers/Articles were presented in the seminar.

REPORT ON 'WORLD TELECOMMUNICATION & INFORMATION SOCIETY DAY'

The Institution of Engineers (India), U.P. State Centre, Lucknow celebrated the World telecommunication and information society day on 17th May 2019. This year was 50th anniversary of World Telecommunication and Information Society Day. The theme this year was 'Bridging the Standardization Gap'. The Chief Guest & Keynote speaker on the occasion was Prof. Neelam Srivastava, Director, Rajkiya Engineering College, Kannauj.



Chief Guest lighting the lamp

She told the audience about the disparities between developed and developing countries, in how far they are involved in the process what has been termed as standardization gap.

Initially Er R K Trivedi, Chairman of the UP State Centre welcomed the guests. The convener of the program was Er. J. S. Mishra, Past Hony. Secretary who introduced the theme to the audience. The Vote of Thanks was proposed by Er Prabhat Kiran Chaurasia, Hony. Secretary.

Report on 'World Environment Day'

World Environment Day was celebrated at The Institution of Engineers (India), U.P. State Centre on 5-6-19. The function was held jointly with Club of Lucknow, Chief Guest of the event was Shri N.N. Upadhyay, IAS (Retd).



A view of lighting the lamp

Secretary General of Club of Lucknow and noted environment activist Shri R.N. Bhargava, FIE speaking on the theme "Air Pollution" told the gathering that main causes of Air Pollution are burning of fossil fuel like, coal, petroleum and other factory combustibles, burning of coal and petroleum product increases PM 2.5 level in the emissions, PM 2.5 being very tiny particles of size below 2.5 microns are very dangerous and penetrate deep into the lungs.

More than 7 million deaths occur worldwide due to ambient i.e. out door as well as indoor exposure to smoke from dirty cook stoves and fuels. In India total coal consumption is 826 million tons per annum which means that more 22 lac tons of coal is being burnt out daily.

The situation is very alarming and solution exists with sustainable transport in cities, solid waste management, access to clean house hold fuels and cook stoves as well as renewable energy and industrial emissions reduction. He also said that we are talking a lot but not doing much in ascertaining and analyzing source of Air Pollution and implementation of remedial plan of action. The need of the hour is to do a study for preparation of emissions inventory with sources and systemic disposal for Air quality control as well as a traffic management study.

Earlier Er. R.K. Trivedi, FIE, Chairman, U.P. State Centre welcomed the guests. Er. V.B. Singh, FIE, Council Member introduced the Key Note Speaker and conducted the programme in the end Er. P.K. Chaurasia, FIE, Honorary Secretary presented a vote of thanks.

Report on Lecture on 'Vedic Mathematics'

A technical talk on Vedic Mathematics was delivered by Er. C. S. Azad on 28/06/2019 at IEI, UP State Centre, Lucknow.

Neither the calculator nor the need of the computer, all this is possible only with the merits of Vedic Mathematics. Nowadays people are enjoying the art of Vedic Maths. Parents have started to offer their children the study of Vedic Maths. Vedic Mathematics is not only mathematics but also a cultural heritage. Keeping this in mind, it is our duty to save the culture and promote it in the world.



A view of lighting the lamp

The main purpose of this event is to bring to light and use the property of ancient India (especially, of mathematical astronomy). In the program organized on Vedic Mathematics by the Institution of Engineers (India), located at River Bank Colony, Vedic Mathematical Expert and Retired Engineer of Irrigation Department, Shri Chandra Shekhar Azad discussed the above mentioned issues with the audience about the merits of Vedic Maths in detail.

Earlier Er. R.K. Trivedi, FIE, Chairman, U.P. State Centre welcomed the guests. Er. V.B. Singh, FIE, Council Member & Convener conducted the event successfully. The event was attended by a large number of members.

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