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Dayalbagh Educational Institute (Deemed University)

DEI news

November 2020 No. 43

DEI Reinforces Relationship with The University of Edinburgh through Signing of an MoU



Dayalbagh Educational Institute and The University of Edinburgh, Scotland, UK signed a Memorandum of Understanding (MoU) through a ceremony organized via multi-way videoconferencing on 03 November 2020. With this agreement, the Universities entered into a formal partnership strengthening a historical relationship that dates back more than seven decades, when Most Revered Prof. M.B. Lal Sahab, the August Founder of Dayalbagh Educational Institute and Supreme Architect of its Education Policy was awarded the Doctor of Science degree from the University of Edinburgh on 25 October 1947 on the basis of the thesis entitled “Studies on larval helminths with observations on the *in vitro* behaviour of Acanthocephala” without the need for a viva voce examination. The MoU celebrates this landmark and momentous relationship with the following words at the beginning of the agreement document :

The Dayalbagh Educational Institute (DEI) and the University of Edinburgh (UoE) recognize the historical relationship between the two institutions and the gracious legacy in academic leadership and social reform of **Most Revered Professor Makund Behari Lal**, an alumnus of the University of Edinburgh and the Founder of Dayalbagh Educational Institute. Prof. Lal was awarded the Central Government Overseas Scholarship for higher studies at the University of Edinburgh and joined the Department of Zoology in March 1946, enrolling for the higher research degree of D.Sc. in May 1946. The work was completed in a little over a year and published in two separate articles in the prestigious journal Nature. Prof. Lal was awarded the degree of D.Sc. in October 1947 and He continued to be a member of the General Council of University of Edinburgh till He departed from His mortal frame on 05 December 2002. The golden mean path



envisioned in the DEI Education Policy (1975) formulated by Prof. Lal has no extremities or intolerance, that is also reflected in the UoE motto “*Nec temere, nec timide*”, which is latin for “Neither rashly, nor timidly”.

The MoU envisages the principles of collaboration and co-operation and to be open with each other. The two institutions envision sharing of information, experience and skills, to learn from each other and develop effective working practices, work collaboratively to identify solutions, eliminate duplication of effort and be aware of risk and costs while complying with all applicable laws and best practices.

The ceremony was blessed with the Gracious presence of Most Revered Prof. P.S. Satsangi Sahab, Chairman, Advisory Committee on Education, Dayalbagh Educational Institutions. Prof. James Smith, Vice Principal International; Prof. Pankaj Pankaj, International Dean for South Asia and Ms. Amrita Sadarangani, Regional Director - South Asia and others representing the University of Edinburgh joined the ceremony along with faculty and administration of Dayalbagh Educational Institute. The University of Edinburgh has been influencing history since it opened the gates to its first students in 1583 and consistently ranks in the top tiers of global Universities.



MEMORANDUM OF UNDERSTANDING

BETWEEN

THE UNIVERSITY COURT OF THE UNIVERSITY OF EDINBURGH, incorporated under the Universities (Scotland) Acts, registered in Scotland as a charity with registration number SC005336 and having its principal office at Old College, South Bridge, Edinburgh, Scotland EH8 9YL, United Kingdom;

AND

DAYALBAGH EDUCATIONAL INSTITUTE, deemed to be a University under section 12(B) of the University Grants Commission Act (India) and having its principal office at Dayalbagh Educational Institute, Dayalbagh, Agra, Uttar Pradesh 282 005, India.

Background

The Dayalbagh Educational Institute (DEI) and the University of Edinburgh (UoE) recognize the historical relationship between the two institutions and the gracious legacy in academic leadership and social reform of **Most Revered Professor Makund Behari Lal**, an alumnus of the University of Edinburgh and the Founder of Dayalbagh Educational Institute. Prof. Lal was awarded the Central Government Overseas Scholarship for higher studies at the University of Edinburgh and joined the Department of Zoology in March 1946, enrolling for the higher research degree of D.Sc. in May 1946. The work was completed in a little over a year and published in two separate articles in the prestigious journal Nature. Prof. Lal was awarded the degree of D.Sc. in October 1947 and He continued to be a member of the General Council of University of Edinburgh till He departed from His mortal frame on 05 December 2002. The golden mean path envisioned in the DEI Education Policy (1975) formulated by Prof. Lal has no extremities or intolerance, that is also reflected in the UoE motto “*Nec temere, nec timide*”, which is latin for “Neither rashly, nor timidly”.

This Memorandum of Understanding sets out the understanding of each party in relation to collaborative activities between them.

1 Areas of Collaboration

1.1 The parties intend to promote co-operation in teaching, research and service to the community by working together on activities and projects where there is alignment of strategy and objectives.


2 Principles of collaboration

2.1 The principles the parties will follow when working together are:

- to collaborate and co-operate and be open with each other;
- to share information, experience and skills, to learn from each other and develop effective working practices, work collaboratively to identify solutions, eliminate duplication of effort and be aware of risk and costs;
- to comply with all applicable laws and best practice.

3 Status

3.1 This Memorandum is not intended to be legally binding and no legal rights or obligations shall arise as a result of its terms except that clauses 4 to 8 below shall be binding.


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James Smith



Pankaj

Two DEI Professors in Top 2% in World Ranking of Scientists

In a recent subject-wise analysis of the top 2% scientists in the world, carried out by researchers at Stanford University, USA, published in the journal PLOS Biology (Impact Factor 7.076), on October 16, 2020, Prof. V.B. Gupta and Prof. Sukhdev Roy were placed in the coveted list.

Professor V.B. Gupta, Co-ordinator, DEI Distance Education Programme and former Head, Department of Textile Engineering, IIT Delhi, is widely known for his work in the field of Polymers, and Professor Sukhdev Roy of the Department of Physics and Computer Science, is an acknowledged

scientist in the field of Optoelectronics and Photonics.

The extensive analysis was conducted using citations from the Scopus database assessing scientists for career-long citation impact, till the year 2019. Authors across all scientific fields were based on their ranking of a composite indicator considering total citations, h-index, co-authorship-adjusted Schreiber hm-index and citations to papers in different authorship positions. The scientists were classified into 22 fields and 176 sub-fields.

DEI Solar-Agriculture Farm

The DST Mission Innovation R&D project envisages multi-pronged RD and demonstration of **Solar Agriculture Farm Ecosystem (SAFE)**. The project has been raised to contribute to the Government's two major targets by the year 2022, i.e. to increase the capacity of solar power plants to 100 GW and to double the income of farmers. The major takeaways of the project include the following:

1. Solar-Agriculture Farm with multiple land-use to increase the farmer's income.
2. Hybrid AC/DC Smart Microgrid for integration of diverse renewable energy resources with utility grid and rational end use of renewable energy in the microgrid.
3. Development of solar powered value chain machinery for agriculture and dairying for empowering farmers.

The project is a collaborative effort of D.E.I., IIT Roorkee and University of Tromso, Norway.

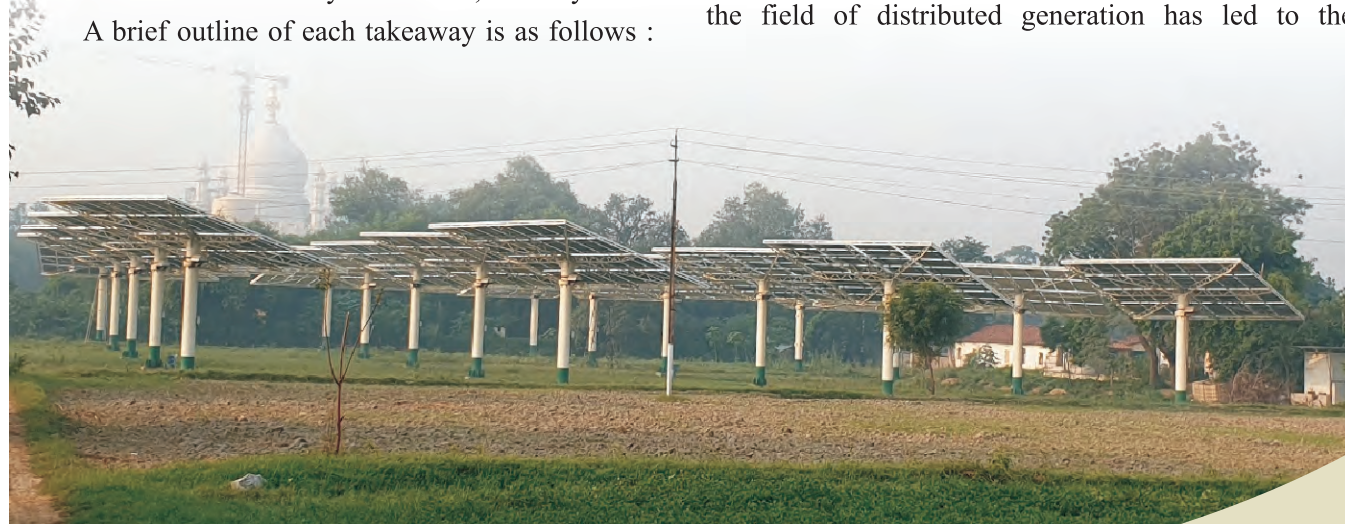
A brief outline of each takeaway is as follows :

Solar-Agriculture Farm

A 200 kWp Solar Power Plant has been installed on elevated structures so that it facilitates solar as well as agricultural farming. The farm hosts a set of 19 towers, each accommodating 32 semi-transparent solar modules at a height of 18', in agricultural land to enable multiple land use, i.e., agriculture as well as solar energy farming. Such a strategy increases the overall land yield which now includes agricultural yield and solar yield and provides an additional and stable source of income for the farmer. The solar power generated would be used for electrical loads in the Dairy complex and nearby places viz., Gowshala, X-Ray center, dairy workshop, irrigation load in Dairy, i-c-n-c TALL, Crèche, Prem Vidyalaya, DEI Girls Hostel, DEI Food Processing Lab., etc.

Hybrid AC/DC Smart Microgrid

The rapid use of renewable energy resources in the field of distributed generation has led to the





development of AC micro grid. Although the loads, in general ac in nature, are fed from this grid but there are a number of applications where dc is required and ac to dc conversion is required. Therefore, to improve the efficiency, it was felt that dc micro grid is required. The proposed objective deals with the development of Hybrid Micro Grid consisting of coexisting ac and dc sub-grids with corresponding loads. Smartness is introduced in the hybrid micro grid by having remote monitoring, diagnosis and control of the generation and loads for efficient and easy operation.

Solar Powered Value Chain

Value addition in agriculture & dairy products is known to increase the profits and therefore, financial wellbeing of farmers. However, lack of dependable and reliable electricity supply in villages prevent the farmers to avail these benefits. Therefore it is proposed to design and develop of solar powered machinery viz. electric thrashers, electric boilers for milk pasteurization, DC compressor based efficient chiller/cold storage etc. to complete the demonstration setup and develop feasible business models to help the farmers. An e-vehicle has been developed for transporting the agricultural produce (vegetables) with solar powered charging support



from the plant. A multi-purpose mobile solar power plant of 5.5 kWp capacity is also being developed in the project.

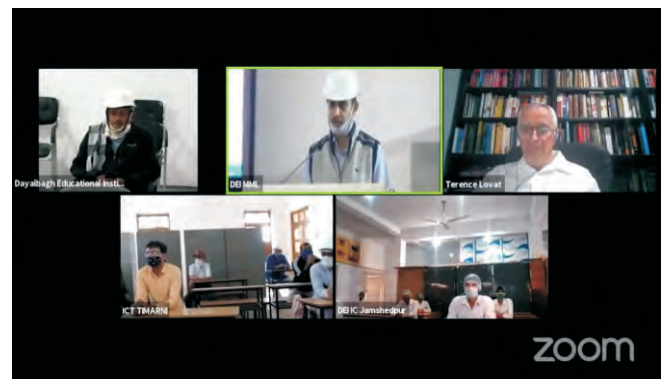
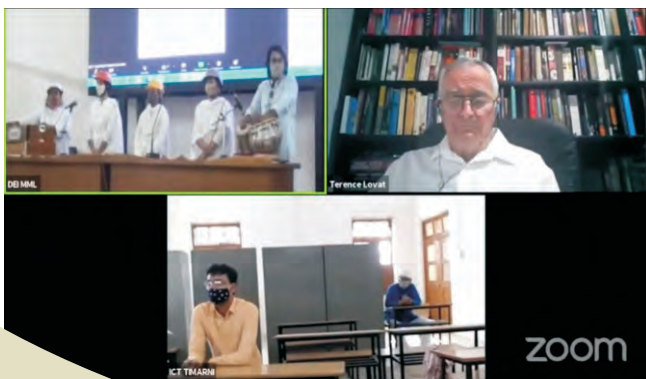
Values and Quality Day Celebration

The Seventh Annual ‘Values and Quality Day’ was celebrated at Dayalbagh Educational Institute on 14th November 2020 with great fervour. The main event was organised at DEI International Seminar Hall and the live proceedings were transmitted in ‘Virtual and Supervised Mode’ through Zoom and DEI Multimedia You Tube Links across the centres.

Prof. Terence Lovat, Emeritus Professor, New Castle University, Australia, delivered the Key-note address where he emphasised that with ‘Values’

integrated with Quality teaching, students become capable to imbibe and practise human values of tolerance, ethics, integrity, social sensibility, etc. in their lives in a more natural and organic way.

The final competitions of Inter-Institute Elocution, Poetry recitation and Bhakti Sangeet were also held on this day where students of various faculties of DEI, Technical College, Prem Vidyalaya and REI Intermediate College participated enthusiastically. Special presentations by the winners of





these competitions were also held during the main event.

List of Prize Winners of Values & Quality Competitions 2020:

Elocution :

Hindi—1. Shreya Verma, Engineering, 2. Prashansa Yadav, Social Sciences, 3. Manish Maheshwari, Technical College.

English—1. Drishti Goel, Engineering, 2. Gaurav Sabhani, Science, 3. Anshima Johri, Commerce.

Poetry Recitation

Hindi—1. Surat Bhushan, Prem Vidyalaya (Title: ‘Sach hai vipatti jab aati hai’), 2. Ami Satsangi, REI (Title: ‘Corona’), 3. Mahima Kumari,

Prem Vidyalaya (Title: ‘Satya ki vijay’).

English—1. Vyom Jangid, REI (Title: ‘Let the light enter’), 2. Daya Drishti Malhotra, Prem Vidyalaya (Title: ‘Value misplacement’), 3. Binti Satsangi, Prem Vidyalaya (Title: ‘Still I rise’), 4. Umang Manocha, Prem Vidyalaya (Title: ‘Where the mind is without fear’).

Bhakti Sangeet

1. Darash Adhari, Arts, 2. Amola Satsangi, Commerce, 3. D. Abhilasha, Science, 4. Nij Mehar Grover, Engineering.

It is heartening to note that ICT centres of DEI across the world also celebrated ‘Values and Quality Day’ with immense zeal by organising cultural and literary events where students and staff together participated in large number.

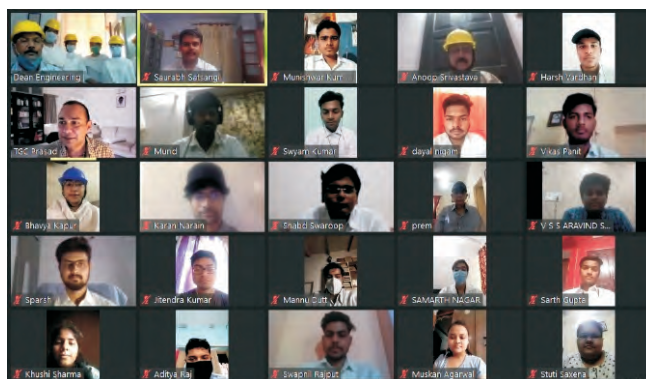
Online Workshop PITCHERS-3 Organized

On 26th September 2020, **Institution’s Innovation Council, Dayalbagh Educational Institute** successfully conducted third phase of a one-day **Innovation and Entrepreneurial workshop** called PITCHERS-3 for new innovators and entrepreneurs of Dayalbagh Educational Institute.

More than 100 students participated in the workshop. Prof. K. Hans Raj, President IIC-DEI, Dr. Anoop Srivastava, T.G.C Prasad, Mr. Karan Narain, Mr. Nagesh Pydah, Prof. C. Patvardhan and Prof. K Santi Swarup attended the workshop as experts and guided the students on their innovative ideas. In the workshop 10 innovative ideas were presented by students, which are listed below :

- ❖ ITOTUF (IDEA THAT ORGANIZES THE UNSUNG FORCES)
- ❖ HARVAR GROUP
- ❖ ELITE
- ❖ VR-PREMONIST
- ❖ MIND BENDERS
- ❖ GRADILY
- ❖ IOTIAN HUB
- ❖ DUALITY
- ❖ RAINBOW EVENTS-FILLING COLOURS TO YOUR DREAMS
- ❖ MAA

In the inaugural speech Prof. K Hans Raj



informed that the DEI was awarded **Five Star Rating** for its performance by Ministry of Education. Dr. Anoop Srivastava and Mr. Karan Narain gave their talks on Consensus Building. Mr. T.G.C Prasad delivered a very informative and fascinating talk on Innovation and Start-ups. Subsequently students presented their innovative ideas. After the presentation of innovative ideas for business, a Panel Discussion was conducted in which Prof. Anoop Srivastava, Mr. T.G.C. Prasad, Mr. Karan Narain, Mr. Nagesh Pydah, Prof. V. Prem Swarup participated.

Faculty News

Faculty of Arts

● Department of Drawing and Painting organised 5-day Online Faculty Development programme on Mural Arts from 6th -10th October 2020. This programme was sponsored by Atal Academy, AICTE (All Indian Council of Technical Education) and co-ordinated at DEI by Dr. Namita

Tyagi. Several experts from Banasthali Vidyapeeth, Rajasthan, J.J. School of Mural Arts, Mumbai, and other universities shared their views and demonstrated their skills related to Mural Arts. Prof. Ragini Roy, Head, Dept. of Drawing & Painting, DEI, also shared her practical knowledge and experiences and created a mural art for the participants of the

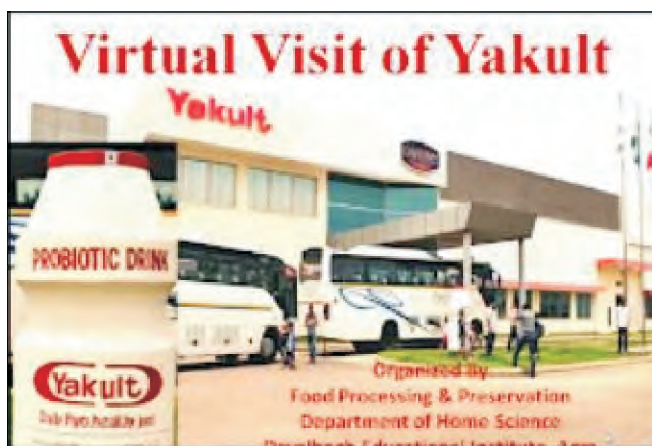


programme. Total 80 participants were present in this online FDP.



- World Food Day was celebrated by Food Processing & Preservation, Department of Home Science on Oct. 21, 2020. On this occasion, General Food Quiz, Poster making, and slogan writing competitions were organized in online mode for the students of Arts Faculty. Around 42 students participated with great enthusiasm in various events.

- A virtual visit of the Yakult Plant, Sonapat, Haryana was organized on 18th August 2020 by the members of Food Processing & Preservation Programme, Department of Home Science. Mr. Aadish Jain, Executive-PR Dept. threw light on Yakult milk processing plant and gave a virtual tour of the plant. At the end, he replied to all the queries of the students regarding uses, process, and health benefits of the Yakult milk.



- An e-lecture on the topic “Food Fortification” was organized to celebrate National Nutrition week by Food Processing & Preservation, Department of Home Science. This lecture was delivered by

Dr. Akanksha Jain, Manager FISCO on 7th Sep., 2020. She explained objectives, need, process and FSSAI standard requirement of food fortification in this lecture. M.Voc and B.Voc. FPP students attended this e-lecture through Zoom meeting.



Faculty of Science

- Professor Sukhdev Roy, Department of Physics and Computer Science, was invited to represent resident Indian scientists as a panellist, at the Vaishwik Bhartiya Vaigyanik Summit (VAIBHAV-2020), a global summit of overseas and resident Indian scientists and academicians during October-November 2020. The summit was inaugurated by the Honourable Prime Minister of India on October 2, 2020. The primary goal was to bring the overseas- and resident-Indian academicians and scientists on a common platform to initiate and execute collaborations, thereby leading to high-quality research activities. Prof. Roy was instrumental in preparing the report on the outcome of the meetings on Biophotonics that was submitted to the Government of India.

- Dr. Sonali Bhatnagar, Department of Physics and Computer Science, was awarded Young Scientist Award FOR WOMEN IN SCIENCE in recognition of the experiment DEASA in the International Virtual Conference on “Frontiers in Manufacturing Technology” (FMT 2020) organized by Department of Physics, School of Applied Sciences, Kalinga Institute of Industrial Technology (KIIT), Deemed to be University, Institute of Eminence (IOE), 1st in Atal Ranking of Institutions on Innovation Achievements (ARIIA) Bhubaneswar, Odisha, India on 13 - 14 October, 2020.

- Dr. Arun Pratap Sikarwar, Department of Zoology, delivered a lecture entitled “In quest of inculcation of Creativity and Innovation along New Education Policy-2020” and another lecture on “Role of Human Brain Memory in Teaching Learning” during the Faculty Induction Programme (FIP) of

UGC-HRDC centre of Jawaharlal Nehru University (JNU), New Delhi, on October 15 and 21, 2020 respectively. He also delivered a lecture entitled “Understanding of Neurobiology of EMOTIONAL INTELLIGENCE with Hands-On Session” during AICTE Training and Learning (ATAL) Academy Sponsored Five-Day Faculty Development Programme (Online mode) at National Institute of Technology (NIT), Hamirpur, on October 19, 2020.

● Dr. Shiroman Prakash, Dept. of Physics and Computer Science, is credited with the publication of research paper entitled “MAGIC STATE DISTILLATION WITH THE TERNARY GOLAY CODE” in the Proceedings of the Royal Society A, September 2020.

Short Summary: Researchers at Dayalbagh Educational Institute have discovered a new pattern for organising quantum information that may help bringing large-scale quantum computation closer to reality.

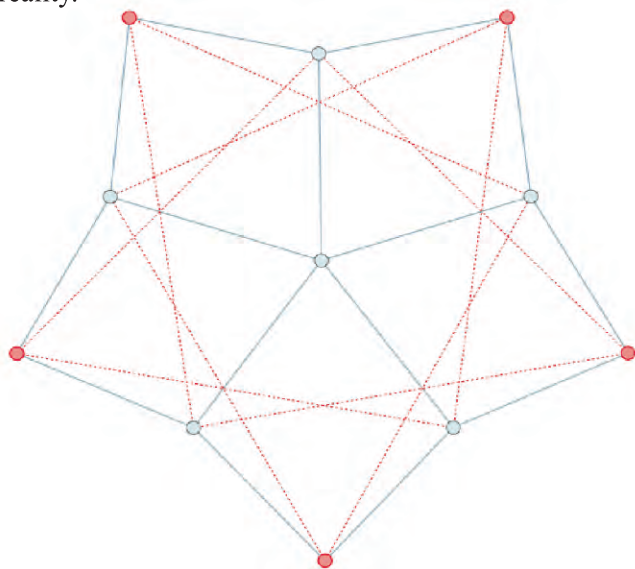


Image Caption: The graph pictured above depicts the ternary Golay code, which is an abstract mathematical pattern to organise quantum information, in order to help protect it from noise in the environment. Dr. Prakash elucidates, “Quantum computers are extremely useful, but constructing a working, large-scale quantum computer is as difficult as building the Taj Mahal from playing cards. Unless you arrange the cards in a carefully chosen patterns, any structure you build will collapse very quickly.” He further adds, “Most research in quantum computing assumes, without justification that quantum information should be organised into two-state systems known as qubits. However, our research suggests that it might be better to organise quantum

information into three-state systems, called qutrits, or, possibly even higher dimensional units.”

It is hoped that further progress in this area will be made possible using the promising mathematical framework presented in the highly acclaimed paper entitled “From n -qubit multi-particle quantum teleportation modeling to n -qudit contextuality based quantum teleportation and beyond” written by Dayal Pyari Srivastava, Vishal Sahni, and Prem Saran Satsangi, published in the International Journal of General Systems 46(4):1-22.

Faculty of Social Sciences

● Dr Purnima Bhatnagar, Department of Management, published a book titled: Social Responsibility in India, ISBN: 978-620-2-81-516-1, through LAP Lambert Academic Publishing.

Technical College

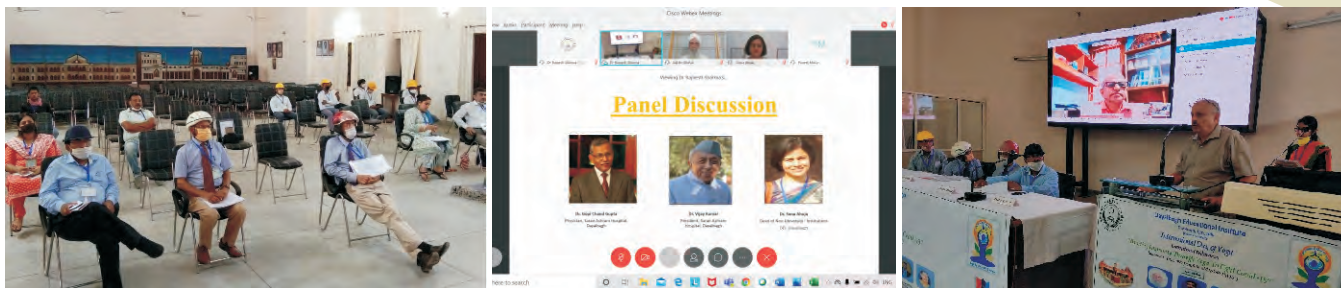
Webinar on “Boosting Immunity through Yoga to Fight COVID -19”

On the occasion of The International Day of Yoga, The Applied Science And Humanities Department, D.E.I. Technical College, organised a webinar on the topic “Boosting Immunity through Yoga to Fight COVID-19”. The Director of the Institute, Prof. Prem Kumar Kalra inaugurated the webinar mentioning the relevance and social importance of Yoga.

The webinar was declared open by Prof. B.R. Ramakrishna, Vice Chancellor, Swami Vivekananda Yoga Research Institute, Bengaluru. In his inaugural speech he explained that since ancient times, in Vedas and Upanishad there is a mention of Yoga and herbs which can help us keep our body away from diseases. Even after that if someone gets infected by certain diseases, herbs have the ability to cure them.

The next speaker Prof. Rudra Bhandari, a distinguished professor of Yoga at the University of Patanjali, highlighted the importance of Yoga and associated food which can help us in preventing COVID-19. Dr. Puneet Misra, Professor, Centre for Community Medicine AIIMS, mentioned how AIIMS has also adopted Yoga as a key method for recovery of patients during the current pandemic situation.

In continuation to this, Dr. Neeru Nathani from BHU, Varanasi spoke about the Ashtanga Sutra of Yoga and its importance. Ms BK Shivika Garg, National Co-ordinator, Brahma Kumari’s World Spiritual University, spoke on the importance of mental peace and seven virtues needed to be built in ourselves.



Prof. V K Katiyar, Dean of Academics and Research, University of Patanjali, explained how we can enhance the energy level or immunity through mechanics of breathing.

Prof. Sat Bir S Khalsa from Harvard Medical School, USA, explained how Yoga is becoming popular across the globe. He also presented case studies demonstrating the positive impact of Yoga on reducing chronic stress.

On completion of the above presentations, a panel discussion was conducted by Dr. Vijay Kumar, Dr Gopi Chand Gupta and Dr Sona Ahuja. It was concluded that stress has an adverse impact on health, performance and wellbeing of a human being. Studies have proved that by taking nutritional diet and adopting yogic culture we can boost our immune system and fight COVID-19.

DEI Board Schools

DEI Board schools have started Teachers Colloquia - an initiative for staff development. The first Teachers Colloquia was organised on 15th June, 2020. The objective of colloquia is to share the best practices of school education with the participants. It is organised fortnightly. Staff of DEI Board schools serving at Rajaborari, Timarni, Delhi, Agra, Murar and Roorkee participate virtually in this event. After nine such colloquia, the participation was extended to schools other than DEI Board schools also. In the tenth Teachers Colloquia, scheduled on 5th December, 2020, schools namely, Sri Ram Centennial School, Agra; RASA International School, Agra; Sadhu Vaswani School, Delhi; Delhi Public School,

Agra, Prelude School, Agra, Shikshantar School, Gurgaon; will participate alongwith DEI Board schools. This Colloquia will be organized on the theme 'Applications of AI in School'.

Prem Vidyalaya

Staff Development Programme: In the first Teachers Colloquia organized on 15th June, 2020, Ms. Mrinalini & Ms. Mohini Yadav presented their ideas on the topic 'Gamification in teaching of Social Science' and 'Mobile technology for teacher support and development' respectively. In the eighth Teachers Colloquia organized on 5th October, 2020, Ms. Mohini Yadav and Ms. Nagma Sharma demonstrated the preparation and uploading of e-content for Vidya Prasar; Ms. Raag Saluja shared ideas on the topic 'Effective online teaching-neuroscience backed strategies'.

Students' Achievements: Aashna Suri of Class-IX (Science section) stood second in Classical Vocal, an event organised by Uttar Pradesh Sangeet Natak Academy, Lucknow.

Tamanna Satsangi of Class-IX (Science section) got consolation prize in Simple Hindi Handwriting Category by National Penman Championship-2020.

REI

Dr. Anil Kumar Dwivedi, Principal, DEI REI Intermediate College, was conferred the Academic Excellence Award 2020 by the Hindustan College of Science and Technology, Agra for achieving academic excellence and contribution to value-based education.

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