

# QUANTUM UNIVERSITY



## Capacity Development and Skill Enhancement



## A Report on Awareness in Recent Trends and Technology Academic Year (2018-2019)

**Quantum University**  
**A Report on Awareness in Recent Trends and Technology**



**Academic Year (2018-2019)**

A handwritten signature in blue ink, enclosed in an oval, above the printed text 'Registrar Quantum University'.

Registrar  
Quantum University

**Following Capacity Development And Skills Enhancement Initiatives Are Undertaken By The Institution**

**5.1.3 Following Capacity Development And Skills Enhancement Activities Are Organized For Improving Students Capability (8) Awareness of Recent Trends and Technology**

<b>Development And Skill Enhancement Programme</b>	<b>Date Of Implementation</b>	<b>Number Of Students Enrolled</b>	<b>Name Of The Agencies-Consultants Involved With Contact Details, If Any</b>
A Three-Day Entrepreneurship Development Program to Explore Recent Trends and Technology	13/09/2018 to 15/09/2018	144	Quantum University (Sponsored by EDI Ahmedabad)
A Workshop on Applications of IOT and Its Recent Trends	22/09/2018	130	Prof. Amit Agarwal & Dr.H.K.Sharma (UPES Dehradun)
A Workshop on Exploring Cutting-Edge Trends and Innovations in Engineering	5/10/2018-6/10/2018	120	Prof. (Dr.) Dinesh Khanduja (National Institute of Technology, Kurukshetra)
Hackathon Challenge 2018 is an Opportunity to Build Expertise in the Latest Technology	10/10/2018	110	The APP Club (Quantum University)
A Conference on Advances in Agricultural Technology Sciences for	22/10/2018	70	Mr. S.S Dhaka



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Sustainable Development			(Assistant Professor And Associate Director, S.V Patel University Of Agriculture And Technology Meerut)
Memorandum of Understanding (Mou) Signing Between Xebia and Quantum University (Technological Value Addition)	23/01/2019	132	Xebia and Quantum University (MOU Signing)
Guest Lecture on Recent Technology of AI, ML, and Quantum Computing	03/02/2019	87	Prof.(Dr.) Madan Mohan Pant (Educationist, Speaker, Mentor and Entrepreneur)
Guest Lecture on Changing Trends in Industries	23/05/2018	82	Prof S.I Soni (Director, National Institute Of Technology)



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## **A THREE-DAY ENTREPRENEURSHIP DEVELOPMENT PROGRAM TO EXPLORE RECENT TRENDS AND TECHNOLOGY**

**Name of Event:** Entrepreneurship Development Program (3 days)

**Date of Event:** 13<sup>th</sup> to 15<sup>th</sup> September 2018

**Hosted By:** Quantum University (Sponsored by EDI Ahmedabad)

**Name of Guest Lecturer:** Dr. Azam Ali Khan, Mr. Vaibhav Gupta, Mr. Suryakant, Mr. V.K. Gupta & Mr. Harmeet Jaiswal

**Number of Participants:** 144 participants

Quantum University, Roorkee, in association with the Entrepreneurship Development Institute of India, Ahmedabad, successfully organized the second Entrepreneurship Awareness Camp (EAC) for students under the DST-NIMAT program of the Government of India from September 13 to September 15, 2018. The event was inaugurated by Prof. (Dr.) Gulshan Chauhan, Director of Faculty of Technology, during a solemn lamp lighting ceremony.

The camp commenced with an enlightening session by Mr. Pushpender Singh, Associate Professor at Quantum University. He introduced the students to the fundamental concepts of entrepreneurship, delving into its historical background and development. His emphasis lay on the importance of problem identification and innovative problem-solving. By providing real-life examples, he made the various concepts easily understandable to the attendees.

### **Major Outcomes of the Event**

1. The event was inaugurated by Prof. (Dr.) Gulshan Chauhan, Director of Faculty of Technology, through a solemn lamp lighting ceremony.
2. Mr. Pushpender Singh, Associate Professor at Quantum University, initiated the camp with an enlightening session on fundamental entrepreneurship concepts. He emphasized problem identification, and innovative problem-solving, and provided relatable real-life examples.
3. Dr. Azam Ali Khan, CEO of TIDES Incubation Centre (IIT Roorkee), shared his experience and insights in developing strategies for market entry and business model formulation, focusing on energy and wastewater sectors.
4. Mr. Vaibhav Gupta, Assistant Professor & PDP Trainer at Quantum University, engaged with students on effective idea presentation and pitching techniques. He emphasized

communication skills, and essential attributes for entrepreneurs, and touched on body language and leadership.

5. Mr. Suryakant from DIC (District Industries Centre), Uttarakhand, discussed startup challenges, and proposed solutions, and educated participants about government schemes and platforms like MSME, startup registration, and documentation.
6. Mr. V.K. Gupta, Retired Branch Manager of Punjab National Bank, highlighted various banking sector schemes for startups and emphasized funding's significance for startup success.
7. Mr. Harmeet Jaiswal, Co-Founder of Corporate Mantra, shared expertise in business development, sales & marketing, corporate service, and entrepreneurship. He inspired students with motivational videos and engaged them in interactive discussions.
8. Organizers conducted a feedback session with participants, gathering insights for future improvements. Mr. M. Kannan, Programme Coordinator of the EAC, expressed gratitude to experts for motivating youth towards entrepreneurship.
9. The event equipped students with valuable knowledge, inspiration, and insights to embark on their entrepreneurial journeys, leaving a lasting impact on their perspective and readiness for entrepreneurship.



**Day 1**



**Day 2**



**Day 3**

Capacity Development and Skill enhancement Program (Awareness in Recent Trends and Technology)  
(Session 2018-19)



**Day 3**

### **Glimpses From The Three Day Entrepreneurship Development Program**

Capacity Development and Skill enhancement Program (Awareness in Recent Trends and Technology)  
(Session 2018-19)

## **A WORKSHOP ON APPLICATIONS OF IOT AND ITS RECENT TRENDS**

**Name of Event:** A WORKSHOP ON APPLICATIONS OF IOT AND ITS RECENT TRENDS

**Date of Event:** 22<sup>nd</sup> September 2018

**Hosted By:** Quantum University Tech Pro Club

**Name of Guest Lecturer:** Prof. Amit Agarwal and Dr. H.K. Sharma from UPES Dehradun

**Number of Participants:** 130 participants

The Tech Pro club achieved a resounding success with their Workshop on IOT and its applications, held on 22<sup>nd</sup> September 2018. The workshop was graced by the presence of esteemed speakers, Prof. Amit Agarwal and Dr. H.K. Sharma from UPES Dehradun, who expertly introduced the students to the intriguing world of IOT devices.

### **Major Outcomes of the Event**

1. Esteemed speakers, Prof. Amit Agarwal and Dr. H.K. Sharma from UPES Dehradun, expertly introduced students to the intriguing world of IOT devices.
2. The workshop provided students with an engaging journey through the fundamentals of IOT devices, their design, and the underlying technologies and communication protocols that enable their seamless functioning.
3. Students gained insights into the diverse array of applications that IOT devices offer in transforming daily lives, along with discovering the numerous career opportunities in the field of IOT development.
4. The workshop's hands-on approach allowed students to delve into practical aspects of IOT, guided by Prof. Amit Agarwal and Dr. H.K. Sharma.
5. Through various experiments and projects, students explored the capabilities of IOT devices, ranging from basic to advanced levels.
6. Students were introduced to different types of IOT microcontrollers, including Arduino and ESP8266 servers, and engaged in tasks like LED blinking and creating a traffic light system.
7. Real-life applications such as an automatic door lock system and an internet-controlled robo-vehicle showcased the practical potential of IOT technology.
8. The workshop combined theoretical knowledge with practical hands-on learning, igniting students' curiosity and nurturing their passion for technology.



**Snapshots from the Workshop on IOT & Its Applications which Prof. Amit Agarwal & Dr. H.K Sharma UPES Dehradun**

Capacity Development and Skill enhancement Program (Awareness in Recent Trends and Technology)  
(Session 2018-19)

## **A WORKSHOP ON EXPLORING CUTTING-EDGE TRENDS AND INNOVATIONS IN ENGINEERING**

**Name of Event:** A WORKSHOP ON EXPLORING CUTTING-EDGE TRENDS AND INNOVATIONS IN ENGINEERING

**Date of Event:** 5<sup>th</sup> and 6<sup>th</sup> October 2018

**Hosted By:** Faculty of Technology

**Name of Guest Lecturer:** Prof. (Dr.) Dinesh Khanduja (National Institute of Technology, Kurukshetra)

**Number of Participants:** 120 participants

The Faculty of Technology at Quantum University successfully hosted the prestigious two-day National Conference on Trends & Innovations in Engineering on October 5th and 6th, 2018. The conference witnessed the presence of esteemed personalities, including Prof. (Dr.) Dinesh Khanduja from the renowned National Institute of Technology, Kurukshetra, Mr. Ajay Goyal, the esteemed Chancellor of Quantum University, Prof. (Dr.) Vivek Kumar, the visionary Vice Chancellor of Quantum University, Prof. (Dr.) Gulshan Chauhan, Director of the Faculty of Technology, and Prof. (Dr.) Rohit Kushwaha, Director of the Faculty of Business and Management, along with faculty members and enthusiastic students.

### **Major Outcome of the Event**

1. The conference witnessed the presence of distinguished personalities, including Prof. (Dr.) Dinesh Khanduja from the renowned National Institute of Technology, Kurukshetra, Mr. Ajay Goyal (Chancellor of Quantum University), Prof. (Dr.) Vivek Kumar (Vice Chancellor of Quantum University), Prof. (Dr.) Gulshan Chauhan (Director of the Faculty of Technology), Prof. (Dr.) Rohit Kushwaha (Director of the Faculty of Business and Management), along with faculty members and enthusiastic students.
2. Prof. (Dr.) Dinesh Khanduja delivered a keynote address, engaging students with the topic "Are We Innovative and Enterprising?" He shared insights on entrepreneurship, citing success stories of startups like eBay and Fab india, inspiring attendees to embrace entrepreneurship and leaving a lasting impression.



**Pictures From The Successful Commencement of Two Day Workshop "TIME"**

## **HACKATHON CHALLENGE 2018 IS AN OPPORTUNITY TO BUILD EXPERTISE IN THE LATEST TECHNOLOGY**

**Name of Event:** Hackathon CHALLENGE 2018

**Date of Event:** 10<sup>th</sup> October 2018

**Hosted By:** THE App Club (Quantum University)

**Number of Participants:** 110 participants

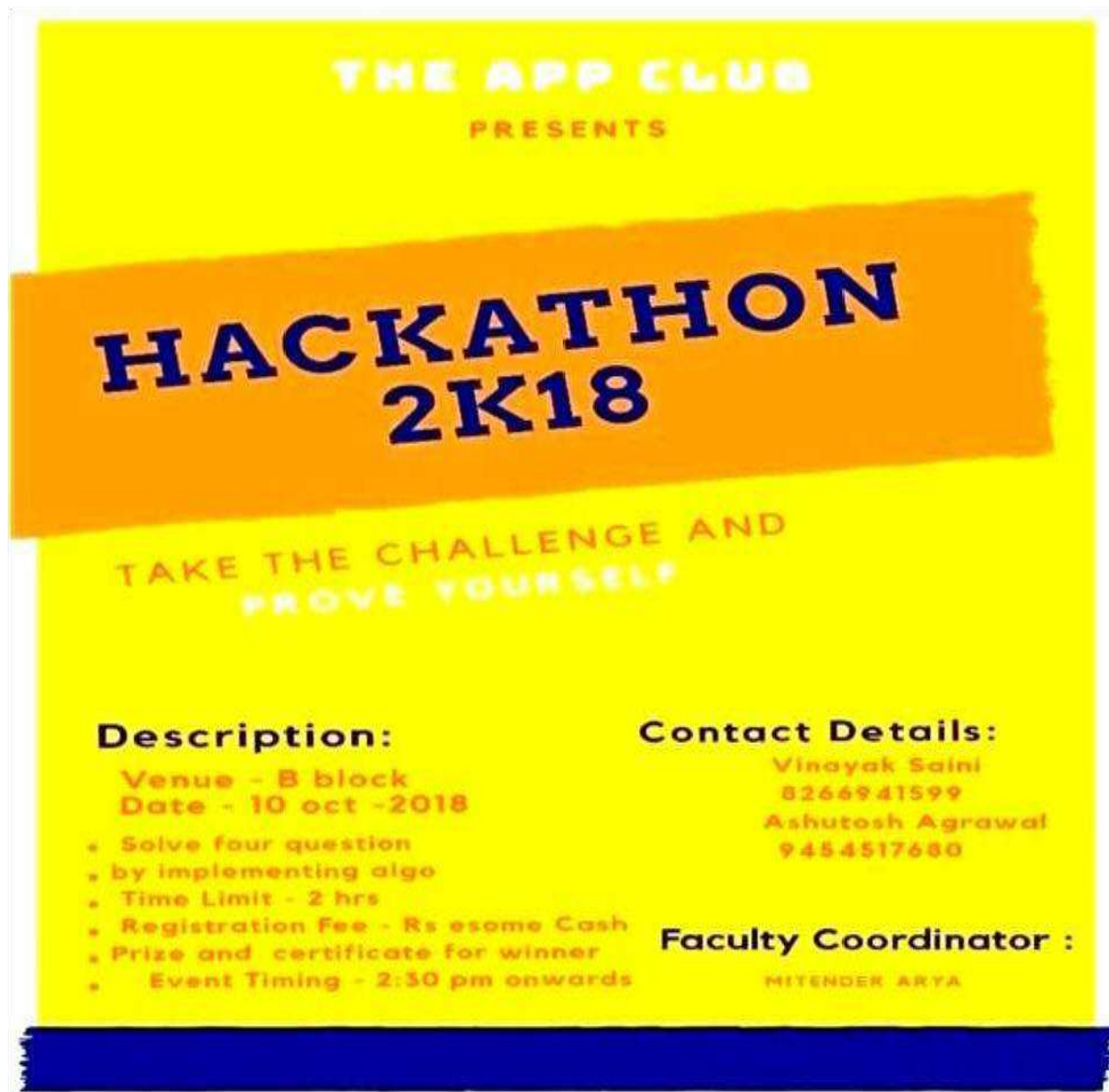
THE APP CLUB, with great enthusiasm and passion, orchestrated a remarkable event on 10<sup>th</sup> October 2018, aimed at introducing the students to the thriving programming culture prevalent in the global landscape. The core objective of this event was to familiarize the students with the latest programming patterns and techniques, empowering them to tackle complex problem-solving scenarios with confidence and expertise.

### **Major Outcomes of the Event**

1. The core objective of the event was to familiarize students with the latest programming patterns and techniques, enabling them to tackle complex problem-solving scenarios with confidence and expertise.
2. The event provided a platform for students to immerse themselves in the ever-evolving world of programming, helping them stay updated with cutting-edge trends in the industry.
3. Participants gained insights into the latest programming paradigms, equipping them to face real-world challenges with a strong foundation of knowledge and skills.
4. The event had a dual purpose, offering students an opportunity to prepare for interviews with esteemed companies. Competitive programming exercises were conducted, helping students enhance their problem-solving abilities and interview readiness.
5. THE APP CLUB fostered an inclusive and invigorating environment that promotes learning, collaboration, and friendly competition among participants.
6. Participants were encouraged to showcase their creativity and innovation while engaging in healthy discussions with peers and mentors.
7. The event acted as a crucial stepping stone for students, bridging the gap between theoretical knowledge and practical application in programming.

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8. THE APP CLUB's dedication to cultivating a thriving programming community among students had a lasting impact, inspiring the next generation of talented programmers and problem solvers prepared to tackle global challenges.





**Glimpse into the Hackathon Challenge, a Display of Programming and Problem-Solving Skills**

## A CONFERENCE ON ADVANCES IN AGRICULTURAL TECHNOLOGY SCIENCES FOR SUSTAINABLE DEVELOPMENT

**Name of Event:** A CONFERENCE ON ADVANCES IN AGRICULTURAL TECHNOLOGY SCIENCES FOR SUSTAINABLE DEVELOPMENT

**Date of Event:** 22<sup>nd</sup> October 2018

**Hosted By:** Department of Agricultural Studies

**Name of Guest Lecturer:** Mr. S.S Dhaka, (Assistant Professor and Associate Director of S.V Patel University of Agriculture and Technology, Meerut)

**Number of Participants:** 70 participants

On a momentous day, 22nd October 2018, the Department of Agricultural Studies organized an enlightening conference titled "Advances in Agricultural Sciences for Sustainable Development." The event gathered esteemed experts and enthusiasts alike, all eager to explore the remarkable strides made in the field of agriculture to foster sustainability.

The chief guest for the occasion, Mr. S.S. Dhaka, Assistant Professor and Associate Director of S.V Patel University of Agriculture and Technology, Meerut, brought invaluable insights to the forefront. His presence added an air of expertise and excitement to the proceedings.

### **Major Highlights of the Event**

1. Esteemed experts, enthusiasts, and the chief guest Mr. S.S Dhaka, Assistant Professor and Associate Director of S.V Patel University of Agriculture and Technology, Meerut, attended the conference, bringing valuable insights and expertise.
2. The conference highlighted remarkable advancements in agricultural sciences that have paved the way for sustainability and addressed challenges like climate change, population growth, and food security concerns.
3. Precision farming was showcased as a technology-driven approach that enhances agricultural practices by optimizing resources and reducing environmental impact.
4. Genetic engineering was discussed as a means to develop resilient and robust crops with enhanced resistance to pests and diseases, promoting sustainability by reducing chemical inputs.

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5. Sustainable irrigation methods were emphasized, demonstrating ways to optimize water usage, conserve resources, and ensure environmental preservation.
6. The integration of agroecological principles in agriculture was explored, promoting biodiversity, natural pest control, and a balanced ecosystem by reducing reliance on chemicals.
7. The conference emphasized that sustainable agriculture is an ongoing journey, necessitating continuous research, innovation, and collaboration among academia, researchers, policymakers, and farmers.
8. The dedication of the agricultural community to building a better future was showcased through the advancements discussed, indicating agriculture's readiness to address 21st-century challenges.



**Picture of Mr. S.S Dhaka Assistant Professor and Associate Director S.V Patel University of Agriculture and Technology Meerut**

## MEMORANDUM OF UNDERSTANDING (MOU) SIGNING BETWEEN XEBIA AND QUANTUM UNIVERSITY (TECHNOLOGICAL VALUE ADDITION)

**Name of Event:** MEMORANDUM OF UNDERSTANDING (MOU) SIGNING BETWEEN XEBIA AND QUANTUM UNIVERSITY (TECHNOLOGICAL VALUE ADDITION)

**Date of Event:** 23<sup>rd</sup> January 2019

**Hosted By:** Quantum University

**Name of Guest:** XEBIA representative

**Number of Participants:** 132 participants

In a remarkable step towards fostering collaboration and growth, Quantum University marked a significant milestone on 23<sup>rd</sup> January 2019 by signing a Memorandum of Understanding (MOU) with Xebia, opening doors to a promising partnership between the two institutions. This momentous occasion signifies the shared commitment to joint initiatives, knowledge exchange, and mutual progress.

The MOU catalyzes both Quantum University and Xebia to embark on a journey of exploration, seeking out opportunities for research projects, faculty and student exchanges, and collaborative programs. By uniting their strengths and expertise, the partnership promises to yield innovative and transformative outcomes in the field of education and beyond.

### **Major Outcomes of the Event**

1. The MOU signifies the commitment of both Quantum University and Xebia to joint initiatives, knowledge exchange, and mutual progress.
2. The partnership aims to foster exploration and innovation through research projects, faculty and student exchanges, and collaborative programs.
3. By leveraging their combined strengths and expertise, the collaboration promises to bring about innovative and transformative outcomes in the field of education and beyond.
4. Quantum University solidifies its position as a center of innovation and academic excellence, creating an environment for the exchange of ideas and fostering creativity among students and faculty.

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5. The collaboration with Xebia enriches the educational experiences of Quantum University's students by providing global perspectives and cutting-edge knowledge.



**In the Picture XEBIA representative addressing the audience**

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## GUEST LECTURE ON RECENT TECHNOLOGY OF AI, ML, AND QUANTUM COMPUTING

**Name of Event:** GUEST LECTURE ON RECENT TECHNOLOGY OF AI, ML, AND QUANTUM COMPUTING

**Date of Event:** 3<sup>rd</sup> February 2019

**Hosted By:** Quantum University

**Name of Guest Lecturer:** Prof. (Dr.) Madan Mohan Pant (Educationist, Speaker, Mentor and Entrepreneur)

**Number of Participants:** 87 participants

On the eventful day of 3<sup>rd</sup> February 2019, an awe-inspiring lecture unfolded, delving into the realm of AI, Machine Learning (ML), and Quantum Computing. The distinguished speaker, Prof. (Dr.) Madan Mohan Pant, a prominent educationist, speaker, mentor, and futurist entrepreneur, captivated the audience with valuable insights into the convergence of these cutting-edge technologies. The lecture aimed to enlighten and enrich the audience's understanding of the present advancements and the boundless potential of this transformative field.

The lecture showcased a gathering of eminent experts in the domains of AI, ML, and Quantum Computing. These visionaries delivered thought-provoking talks, sharing their profound knowledge and expertise with the audience. They passionately discussed the fundamental principles, practical applications, and the immense impact these technologies are poised to make across various industries.

### **Major Outcome of the Event**

1. The distinguished speaker, Prof. (Dr.) Madan Mohan Pant captivated the audience with valuable insights into the transformative potential of these cutting-edge technologies.
2. The lecture brought together eminent experts in the domains of AI, ML, and Quantum Computing, who shared their profound knowledge, experiences, and visions for the future.
3. Attendees gained a comprehensive understanding of AI's capabilities, the power of Machine Learning, and the revolutionary promise of Quantum Computing.
4. The lecture not only covered technical aspects but also explored the synergistic possibilities that arise from the convergence of these technologies.

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5. Ethical considerations related to responsible development and deployment of these technologies were addressed, emphasizing the importance of ethical frameworks.
6. The lecture catalyzed awareness, inspiring innovation and preparing individuals to embrace the challenges and opportunities presented by AI, ML, and Quantum Computing.
7. Prof. (Dr.) Madan Mohan Pant's enlightening lecture nurtured growing awareness and enthusiasm among the audience, motivating them to explore and innovate.





**Snapshots from the Guest Lecture on Artificial Intelligence, Machine Learning, and Quantum Computing**

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(Session 2018-19)

## GUEST LECTURE ON CHANGING TRENDS IN INDUSTRIES

**Name of Event:** Guest Lecture on Changing Trends in Industries

**Date of Event:** 23<sup>rd</sup> May 2018

**Hosted By:** Quantum University

**Name of Guest Lecturer:** Prof. S.I. Soni, Director National Institute of Technology

**Number of Participants:** 82 participants

On the enlightening date of 23rd May 2018, a thought-provoking lecture was delivered by Prof. S.I. Soni, Director of the esteemed National Institute of Technology, who also holds a prominent position as a member nominated by Trust. The guest lecture focused on the changing trends in industries and proved to be an insightful journey into the dynamic and evolving landscape of various sectors.

To shed light on the factors driving these changes, the lecture held a special emphasis on the impact of these trends on businesses and the plethora of opportunities they present for future growth and innovation.

### **Major Outcome of the Event**

1. The lecture aimed to provide insights into the dynamic and evolving landscape of various industries, shedding light on the factors driving these changes.
2. Prof. S.I. Soni emphasized the significant impact of changing trends on businesses and highlighted the multitude of opportunities they offer for future growth and innovation.
3. Sustainability and social responsibility emerged as key themes in the lecture, with a focus on companies adopting eco-friendly practices, ethical sourcing, and engaging in corporate social responsibility to address consumer demands and global challenges.
4. The lecture offered attendees a comprehensive overview of the contemporary business landscape, covering technological advancements, digital transformation, sustainability initiatives, and disruptive innovation.
5. The insights shared by the guest speaker equipped the audience to stay informed about emerging trends, enabling them to remain competitive and leverage opportunities in the rapidly evolving business world.

Capacity Development and Skill enhancement Program (Awareness in Recent Trends and Technology)  
(Session 2018-19)

6. The lecture emphasized the transformative nature of changing trends in industries and highlighted the importance of adaptability and understanding to navigate the dynamic and competitive business environment successfully.
7. Attendees gained valuable knowledge that can help them thrive amidst industry transformations, ensuring they contribute positively to the evolving landscape and achieve sustained success.
8. The lecture acted as a beacon of knowledge, empowering individuals and businesses with the necessary insights to embrace changes and stay agile in an ever-evolving industrial environment.





**Peek a View into the Guest Lecture on Changing Trends in Industries by Prof S.I Soni  
Director National Institute of Technology**