



3rd Faculty Development Programme  
on  
Research Methodology  
20th to 24th August, 2018

11/2/18

**FACULTY DEVELOPMENT PROGRAM (FDP)**

**TEXTILE DESIGN 20.08.2018 – 25.08.2018**

| Date/Time  | 10:00 AM – 11:00 AM                                                                                          | 11:00 AM - 11:30 AM | 11:30 AM – 01:30 PM                                                                                                             | 01:30 TO 02:30 | 02:45 PM – 04:45 PM                                                                                                                 |
|------------|--------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------|
| 20.08.2018 | Inauguration note and Introduction of Participants<br><br>Opening Remarks                                    | TEA BREAK           | Textile design is a user-centered design approach<br><br>Resource Person:<br>Dr. Shikha Bhardwaj<br>SOD                         | LUNCH          | Textile design<br><br>Resource Person:<br>Mr. Deepak Khandelwal<br>SOD                                                              |
| 21.08.2018 | Traditional market research<br><br>Resource Person:<br>Mr. Deepak Khandelwal<br>SOD                          |                     | Observation and the goal to identify latent customer needs<br><br>Resource Person:<br>Mr. Tushar Gupta<br>SOD                   |                | The importance of product innovation as a source of competitive advantage<br><br>Resource Person:<br>Ms. Akanksha Shekhawat<br>SOD  |
| 22.08.2018 | Opportunities to commercialize innovations existing users<br><br>Resource Person:<br>Mr. Tushar Gupta<br>SOD |                     | Reflection and Analysis in Textile design<br><br>Resource Person:<br>Dr. Shikha Bhardwaj<br>SOD                                 |                | Prototypes, simulation and role-playing are other forms of learning processes<br><br>Resource Person:<br>Ms. Akanksha Shekhawat SOD |
| 23.08.2018 | "Human factors" or "Human inspiration"<br><br>Resource Person:<br>Ms. Akanksha Shekhawat<br>SOD              |                     | Understanding the market, client, technology and perceived constraints.<br><br>Resource Person:<br>Mr. Deepak Khandelwal<br>SOD |                | Visualize concepts in Textile design that are new to the world.<br><br>Resource Person:<br>Dr. Shikha Bhardwaj<br>SOD               |
| 24.08.2018 | Evaluate and refine the prototype in Textile design<br><br>Resource Person:<br>Dr. Shikha Bhardwaj SOD       |                     | Implement the new concept for commercialization.<br><br>Resource Person:<br>Ms. Akanksha Shekhawat<br>SOD                       |                | Combine shapes to create patterns<br><br>Resource Person:<br>Mr. Deepak Khandelwal<br>SOD                                           |
| 25.08.2018 | Design Thinking<br><br>Resource Person:<br>Mr. Deepak Khandelwal<br>SOD                                      |                     | Embrace Risk and Failure<br><br>Resource Person:<br>Dr. Shikha Bhardwaj<br>SOD                                                  |                | Create multiple variations of a single design<br><br>Resource Person:<br>Ms. Akanksha Shekhawat SOD                                 |

Mody University of Science and Technology is a state private University with the objective of encouraging and motivating the women population and to avail quality education with world-class infrastructure and facilities in an IT-savvy environment. The department of Design works with a vision to emerge as a leading centre for Undergraduate and Post Graduate, study and research in fashion, Interior and graphic communication. It is aimed to generate skilled professionals for teaching and industrial sectors of Design and other related disciplines.

The world is going through a transition phase where each and every element of the same needs an utmost care and requires reshaping through holistic design & its communication. An attention needs to be given in a more methodological manner. It goes without saying that Art, Design & Communication plays the most important role in this correction time and the same must be designed for its dissemination.

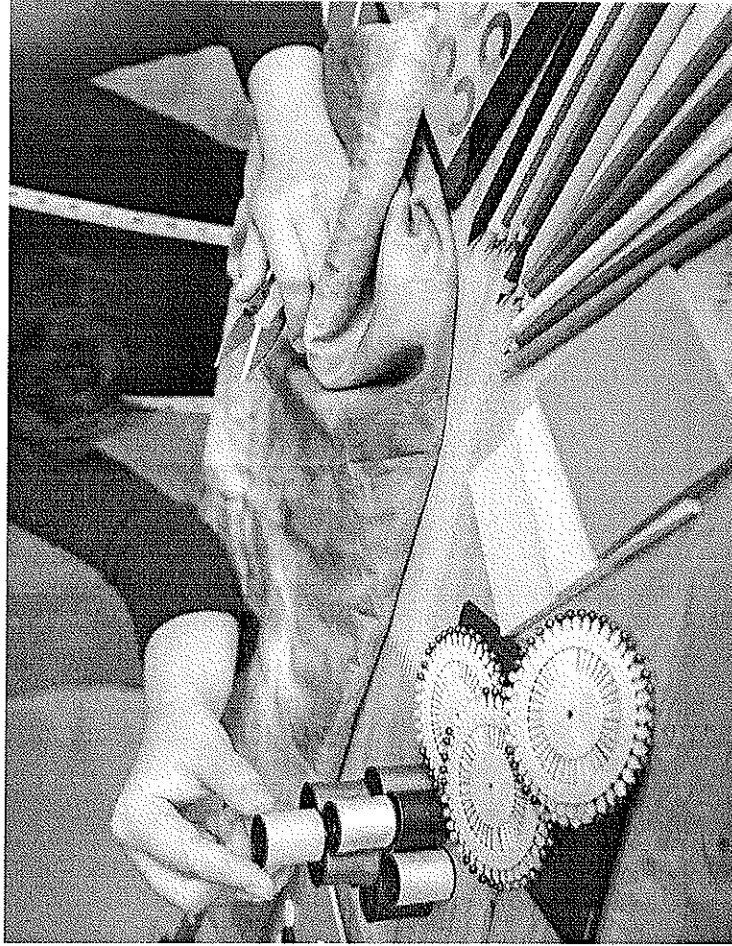
**School of Design @ Mody University** has a transparent and much focused vision to prepare an army of artists and designers. These will be sought after professionals and entrepreneurs meet the global requirements. School of Design provides a collaborative & participatory learning sphere both physical & virtual to each participant for cohesive growth. Its conceptual and experimental pedagogy and inter-disciplinary curriculum offer students a critical and contemporary perspective on various art and design discipline to solve real world problems.

We WELCOME! You to the School of Design at Mody University, to write your own story and a bright future as an inspiration for million other students. Cad for textile design: Designer

## FACULTY DEVELOPMENT PROGRAMME (FDP)

ON

Textile Design from 20-8-2018 TO 25-8-2018



**About the FDP:** School of design Organizing Online FDP on Textile design any of faculty from the school of design are taking part.

There are multiple ways of printing a texture. They can be printed through hand block printing, screen printing, computerized printing or through some other coloring procedure. Textile designing is an inventive field that incorporates style design, cover fabricating and some other material related field. Apparel, floor coverings, window hangings, towels, and mats are generally useful items coming about because of textile design. Inside the style business, textile designers can motivate assortments, patterns, and styles.

Textile designers convey an imaginative vision of what a completed textile will resemble with a profound comprehension of the specialized parts of creation and the properties of fiber, yarn, and dyes.



## FACULTY DEVELOPMENT PROGRAMME (FDP)

Textile Design from 20-8-2018 TO 25-8-2018

### Registration Form

1 Name : Mr. Tushar Gupta  
2 Designation : Asst. prof.  
3 Institution : Mody University  
4 Email : tushargupta03@gmail.com  
5 Mobile No : 9529502878  
6 Address for correspondence : Mody University Lakhnau  
7 Educational qualification : B. Des - Fashion.  
8 Subjects taught for : Design Concepts Illustration  
9 Experience in years : 12 years  
    i Teaching : 10 years  
    ii Research :  
    iii Industry : 02 years

#### Declaration

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinators in case I am unable to attend the course.

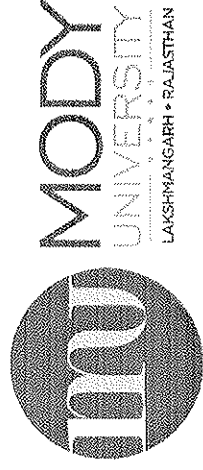
Date: 20.8.2018

  
Signature of the Applicant

For further enquiries please contact:  
deepak.cfdm@modyuniversity.ac.in  
sukhvirsingh.sod@modyuniversity.ac.in

# FACULTY DEVELOPMENT PROGRAM

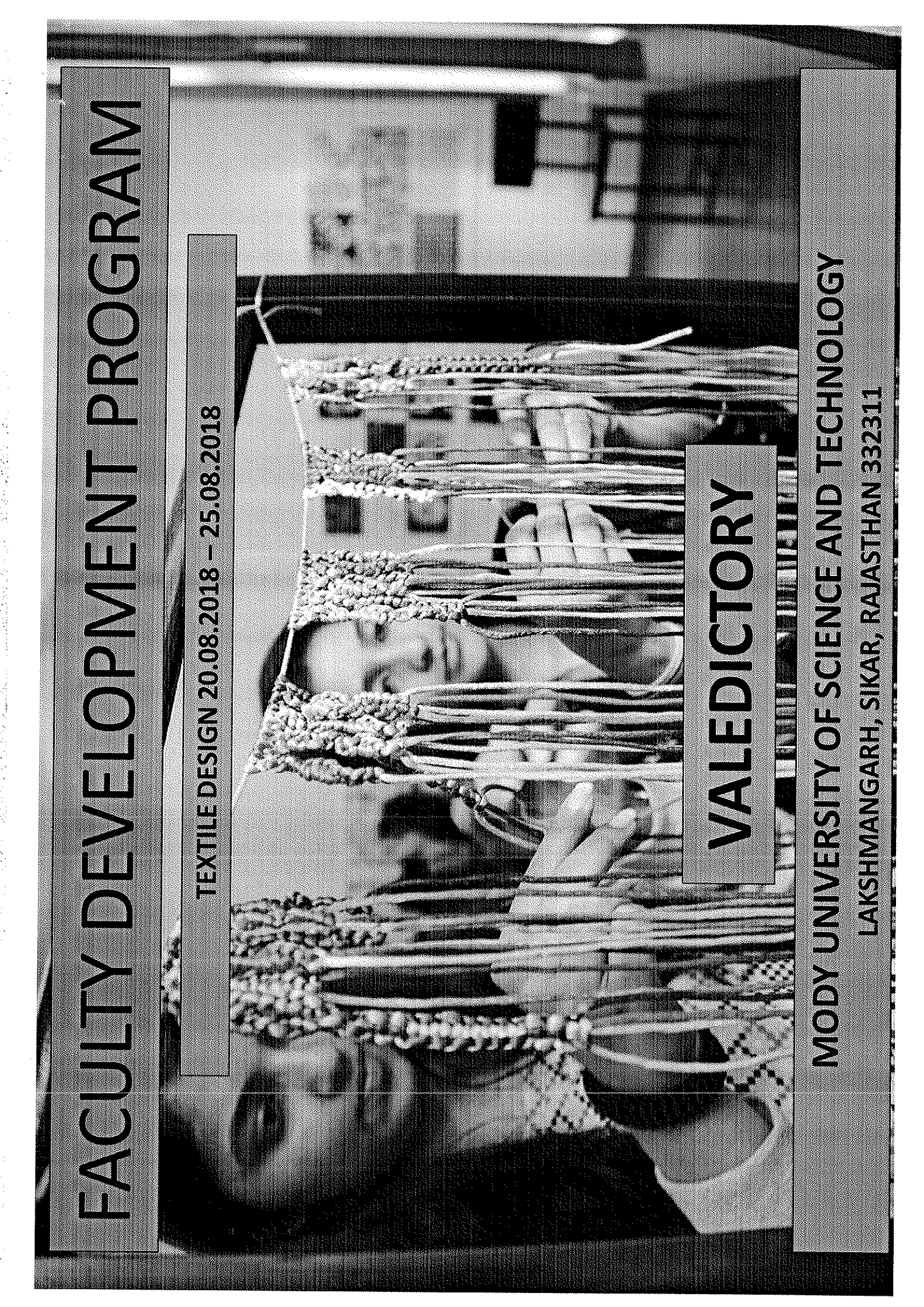
TEXTILE DESIGN 20.08.2018 – 25.08.2018



**MODY UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**LAKSHMANGARH, SIKAR, RAJASTHAN 332311**

# FACULTY DEVELOPMENT PROGRAM



TEXTILE DESIGN 20.08.2018 – 25.08.2018

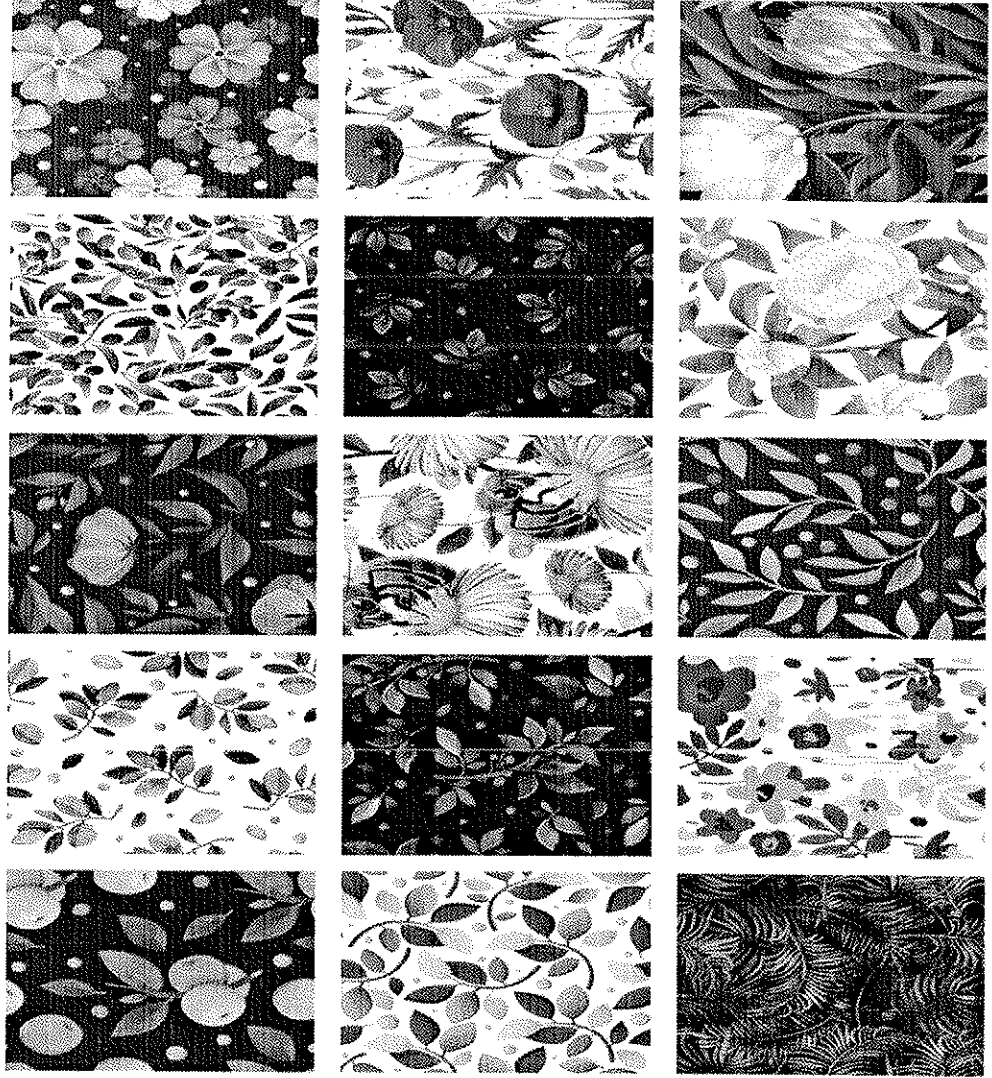
## VALEDICTORY

**MODY UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**LAKSHMANGARH, SIKAR, RAJASTHAN 332311**

# TEXTILE DESIGN

Textile design refers to the patterns or prints on the woven, knitted, printed or surface ornamented fabrics. Fiber, yarns and finishing of the final product, are the key things that need to be kept in mind. There are several ways to print a fabric. They can be printed through hand block printing, screen printing, digital printing or through any other dyeing technique. Prints or motifs on the fabric are the added features or elements on the fabric that add an edge to the solid color of the garment. Such motifs or prints add a striking feature to the fabric and look appealing. Though there are a lot of techniques through which these prints are applied on the fabric.



# REFLECTION AND ANALYSIS IN TEXTILE DESIGN

These prints add a striking feature to the garment and make it look alluring. Some of the basic patterns like stripes, paisleys, polka dots and abstract prints that we have known and are wearing it since ages. Textile design is a very critical term, it started off with people incorporating these prints in their apparels and then later, these prints have ruled the accessory world, with being printed on handbags and footwear to cushions, curtains and other upholstery products. The running trend is print on print with decorating yourself in different prints. This trend added a striking feature and came to be noticed as a whole. Ikat, wherein the yarns were pre-dyed and now, where prints are incorporated on the fabric; textile design industry has come a long way since then. There is a great demand among people for these beautifully printed fabrics





**SCHOOL OF DESIGN**  
**FACULTY DEVELOPMENT PROGRAM (FDP)**  
**TEXTILE DESIGN 20.08.2018 – 25.08.2018**

**DISCUSSION DURING FDP:**

Textile design refers to the patterns or prints on the woven, knitted, printed or surface ornamented fabrics. Fiber, yarns and finishing of the final product, are the key things that need to be kept in mind. There are several ways to print a fabric. They can be printed through hand, screen printing, digital printing or through any other dyeing technique. Prints or motifs on the fabric are the added features or elements on the fabric that add an edge to the solid color of the garment. Such motifs or prints add a striking feature to the fabric and look appealing. Though there are a lot of techniques through which these prints are applied on the fabric.

**Core aspects:**

The process of textile designing initiates on paper as a simple idea, continues its journey, and completes its cycle in a printed cloth. It includes various styles such as stripes, floral, geometric, checks, paisley, tropical and many more. The process involves four steps:

- Conceptualization of new designs.
- Creating design samples.
- Experimenting with various hues, to select shades complimenting with each other.
- Designing the fabric, going in par with the current fashion trends.

The core aspect of textile designing involves designing the fabric by using different techniques such as printing, weaving, tracing embroidery, and color detailing. Once the process is conceptualized, virtual samples are created, and later on prototypes are executed.

**CAD software for Textile Designing:**

The design is initially envisioned by the textile designer and is later on developed into woven or printed textiles. The deep understanding of the designer regarding the technical aspects of fibres, dyes, and yarns help in developing the designing process. Initially patterns were made on a special graph paper. However, currently with the advent of technology CAD software is used for the same. All types of fabric weaves, and designs are virtually made, and a virtual fabric is created.

Once the designer is satisfied, the required parameters are collected as per requirements to create the virtual design into actual form. CAD technology is now being adopted into every power loom industry. The software has potential applications in numerous areas such as carpets, blankets, and knitting industry. Textile designing can be used for creating interiors for home furnishings, clothing fabrics, and other textile products.

#### **Career as a Textile designer:**

Textile designing was unheard of vocation, until a few years ago. Growing need for textile and textile products motivate career options in this field. A successful career in textile designing requires creativity, technical knowledge, research, data handling capacity, and commercial awareness about the textile industry. The job needs a right blend of creative mind, and technical skills.

To join the Textile Design industry candidates need to have a creative personality and they should possess adequate knowledge of different fabrics and weaves. Candidates who aspire to pursue a Textile Design programme need to possess the below mentioned skill-set:

|                                                |                                              |
|------------------------------------------------|----------------------------------------------|
| Have Creative and artistic taste               | Knowledge of colours, shades and tones       |
| Good communication skills                      | Have Originality and innovativeness          |
| Interest and skill in drawing and illustration | Should be goal oriented                      |
| Be Fashion conscious                           | Have an eye for detail                       |
| Have visual imagination                        | Good observation skills                      |
| Have Persuasiveness                            | Understand the market and customer lifestyle |

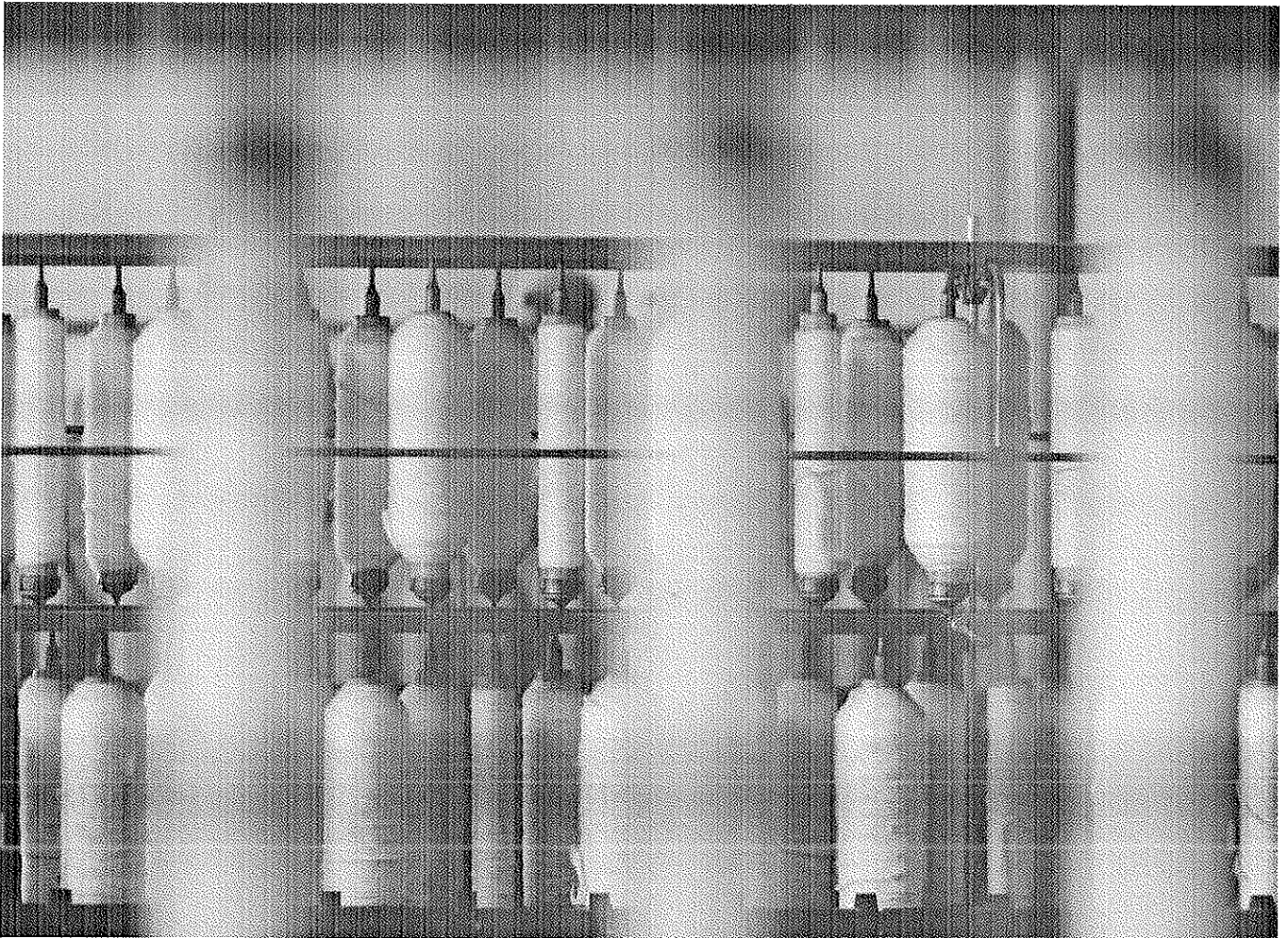
A textile designer has many qualities and can contribute a host of expertise to your brand. Some of the main elements they cover include:

- Creating sketches and samples for presentation
- Liaising with different teams or suppliers such as manufacturers and buyers
- Interpreting brand ideas and concepts
- Using specialist software to assist the process
- Advising best practice and design elements for chosen fabrics
- Sourcing suitable textiles based on brand requirements
- Up to date knowledge of the industry and trends

There are several freelance textile design specialists that are able to translate your ideas into saleable products. But, there is also a selection of studios and designers within manufacturing companies that can assist you.

## OUTCOMING OF THE FDP:

Textile design is the discipline that concerns itself with the ideation, creation and modification of textiles, which are materials made through the process of linking and joining. Finding application in various fields such as fashion, home decor, lifestyle, automobile and other service industries, textiles form a substantial part of our daily interaction with the tangible world. Its versatile nature and adaptability is what makes it a very reliable, adept and responsive material in meeting man's evolving needs.



### Historical and cultural context

Textiles are a representation of the social, cultural, political, economic and religious identity as history holds testimony. It has been and still is used as a powerful medium in anthropological expressions and relations, and holds significance in any influential and powerful events of the world such as the revolutions, wars, rebellion, revolts, protest, confrontation, and also weaves itself into the functioning of our own daily personal narratives. It holds the power to identify members of a community and through its study, it is possible to excavate the influences and cultural environment that affected its making.

### Classification based on construction and development:

- Textile Design can be classified in terms of its construction techniques (weaving, knitting, and other non-interlocking and interlacing techniques) and its 2D and 3D surface development (printing, embroidery, and fabric manipulations).
- Commonly constructed using yarns which are spun from fibres, weaving involves the interlocking of yarns while the interlacing format of knitting imparts knitted textiles more flexibility and stretch compared to woven textiles.
- Construction techniques that employ non-woven and non-knitting techniques such as felt, made by matting layers of loose fibres are an alternative to textile construction.
- Woven textiles make up more than half of the global textile manufacture and they are mostly used in making 'formal' apparel pieces such as suits and skirts, and also for application in homeware and interiors.
- Knitted textiles are preferred for roles that require flexibility or for more 'informal' occasions. Inner-wear, t-shirts, socks, and home-furniture pieces such as office chairs or any other application that requires movement can be supported by knits.
- Felt or other non-woven textile pieces has found their place in utility spaces such as health and personal care, and in the technical and industrial fields such as engineering and geo-textiles, among others.
- Concerned with the embellishment of constructed textiles, 2D surface textile design broadly involves various printing methods such as screen, rotary, roller, block and digital, along with laser cutting. 3D textile development includes various embroidery, and other textile manipulation techniques such as quilting, which involves layering textiles, and patchwork which is the assemblage of various fabric pieces to construct textile.



### Scope of textile design in India:

- With its abundant resources and historical textile heritage, India remains a global competitor of textile design and production. What makes the Indian textile industry different from its global competitor is the integration of its indigenous and traditional craft practices in its textile production.
- These multitude of regionally-exclusive craft practices that are diverse in idea and methodology contribute to the richness of the Indian textile sector and makes one question the distinction between craft and design.
- Upon close enquiry, it is evident that these textile practices are the pioneers of sustainability and sustainable living as they took shape before the industrial revolution which has arguably disrupted and still disrupts the natural ecological balance.
- It is an ironic reality to recognize that the Indian textile craft practices embrace a sustainable methodology which is far advanced from what we have been able to achieve today. It is also interesting to note the relevance and role the Indian "fabric" played in its history. Acting as an agent of 'self-reliance' during the colonial rule in India, the 'khadi' fabric of India as popularized by Gandhi is a testimony to the resilience of the country's unity as a collective community; the significance of the fabric still being acknowledged by the attire choices of the current political leaders.



- Textile design and its understanding throughout the past decade has evolved more than just as a medium of ornamentation, but as a practice that supports inter-disciplinary participation and development; and as a core field of knowledge that facilitate the functioning and efficiency of various industries such as fashion, interior, healthcare and many more that rely on it.



## SCHOOL OF DESIGN

### CERTIFICATE OF PARTICIPATION

This is to certify that \_\_\_\_\_ of \_\_\_\_\_  
participated in \_\_\_\_\_ Workshop / Guest Lecture  
from date \_\_\_\_\_ to \_\_\_\_\_ organized by School of Design  
(SOD), Mody University, Lakshmangarh (Rajasthan).

Convener

*August 25, 2018*

CO-Convener





57  
~~62~~

## FACULTY DEVELOPMENT PROGRAMME (FDP)

ON  
Research Trends in Sensor Network and IoT  
(20th – 25nd August 2018)  
Organized by

**Department of Electronics and Communication Engineering (SET)**  
**Mody University of Science and Technology**  
**Lakshmangarh, Sikar, Rajasthan. 332311**

**Preamble:** "Electronics & Communication Engineering department at School of Engineering and Technology, Lakshmangarh provides specialized training to the faculty of Engineering, Arts, Commerce & Science colleges, etc., by developing state-of-the-art facilities. It is working towards enhancing the domain expertise of interested faculties with special focus on the faculties of different domain, The SET is involved in multitude of activities including training, consultancy and entrepreneurship programmes. It offers faculty development programs in standardized courses and emerging areas of Electronics, Information Communication Technologies; provides training and consultancy for industry, CEP for working professionals, apart from rendering advice and support for technical incubation. Electronics and Communication Engineering department, MUST is organizing a faculty development program to introduce the upcoming technology of Internet of Things (IOT) and sensor networks in Research. The focus will be on introducing raspberry PI (with built in WiFi chip), python scripting language and linux, with applications in embedded systems and IOT.

**About the FDP:** The Internet of Things (IoT) has evolved from the convergence of wireless technologies, micro-electromechanical systems (MEMS) and the Internet. By connecting 'things' in the real world such as cars, buildings, and industrial equipment, IoT promises to revolutionize how we live and work. This FDP will focus on issues and challenges in the field of Sensor Networks and IoT. During the above mentioned six days, intensive training was imparted in different application of Sensor networks and Internet of things using with lectures and laboratory experiences. The 6 day program was well-planned and showed tremendous outcome at the end. In brief this FDP covers Introduction of WSNs, sensor network and IoTs, Integration of WSNs to IoTs, start-of-art WSNs algorithms, advances in IoTs and its applications, IoT hardware and software and its uses, Theoretical explanation and practical demonstration on various IoT communication, Application protocols, followed by cloud integration, demonstration of practical experiments conducted in our institute, along with various hands-on experiments such as Environment monitoring, Smart home automation, Fire detection, Smart lighting, Water quality check and etc., for the participants.

### Major Course Contents:

- Understand the usability of the IoTs across various real-world applications
- Understand and design different application and communication protocols for IoTs/WSNs
- Demonstrate and Hands-on various IoT applications
- Demonstrate integration of IoTs/WSNs with cloud platform and perform data analytics
- Design solutions for several applications using IoTs by integrating machine learning
- Understand the usability of the IoTs across various real-world applications
- Understand and design different application and communication protocols for IoTs/WSNs
- Demonstrate and Hands-on various IoT applications
- Demonstrate integration of IoTs/WSNs with cloud platform and perform data analytics
- Design solutions for several applications using IoTs by integrating machine learning

### Important dates:

Last date for submission of Application: 15/08/2018  
Duration : 20th – 25nd August 2018

11/2/20

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**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Research Trends in Sensor Network and IoT**  
(20th – 25nd August 2018)

**Registration Form**

1. Name : Ms. Purnima Sharma
2. Designation : Assistant Professor
3. Institution : Mody University of Science and Technology
4. Email : purnimasharma.cet@modyuniversity.ac.in
5. Mobile No : 8852070714
6. Address for correspondence : ECE dept, SET, MUST
7. Educational qualification : M.Tech
8. Subjects taught for : B.Tech
9. Experience in years : 6 yrs

**Declaration**

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinators in case I am unable to attend the course.

Date:

Signature of the Applicant

**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Research Trends in Sensor Network and IoT**  
(20th – 25nd August 2018)

**Resource Person**

**Convener FDP: Dr. Rajeev Pourush**  
**Coordinator FDP: Ms. Jeetu sharma**

| S. No | Name                          | Affiliation     | Topic of the Talk                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------|-------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | <b>Dr. P. P. Bhattacharya</b> | ECE Dept., MUST | <ul style="list-style-type: none"> <li>• Fundamental of IoT and sensor Network</li> <li>• IoT and Data Analytics and Arduino Architecture</li> <li>• Demo with IoT Devices, AI/ML in IoT</li> <li>• IoT languages and its tools, Research issues and case studies in IoT</li> </ul>                                                                                                                                                                                                                              |
| 2     | <b>Mr. Vikas Raina</b>        | CSE Dept., MUST | <ul style="list-style-type: none"> <li>• Applications of IoT, Data Link Issues, looming and business opportunities, fog computing, etc,</li> <li>• CISCO Packet Tracer for IoT and LORA for IoT</li> <li>• IoT Protocol Stack Applications of IoT</li> </ul>                                                                                                                                                                                                                                                     |
| 3     | <b>Mr. Kaushik Ghosh</b>      | CSE Dept., MUST | <ul style="list-style-type: none"> <li>• Real time application in IoT</li> <li>• different Zigbee topologies</li> <li>• Sensor devices</li> <li>• Smart mobility solution</li> <li>• Go Faster &amp; Go Further</li> </ul>                                                                                                                                                                                                                                                                                       |
| 4     | <b>Ms. Ranjana Thalore</b>    | ECE Dept., MUST | <ul style="list-style-type: none"> <li>• Checking the soil moisture level using Arduino</li> <li>• Using NFC card with Arduino</li> <li>• Simulation of IoT Scenarios using Open-Source Platforms</li> <li>• Hands-on tutorial on things speak Smart Sensors for IoT</li> <li>• Qualnet Simulator tool, System design of an IoT</li> <li>• Research challenges of WSN &amp; IoT, Case study on sensor based projects</li> <li>• Recent resear trend on IoT: discussion</li> <li>• NS-3 Simulator tool</li> </ul> |



## FACULTY DEVELOPMENT PROGRAMME (FDP)

ON  
**Research Trends in Sensor Network and IoT**  
(20th – 25nd August 2018)

**Convener: Dr. Rajeev Pourush**  
**Coordinator: Ms. Jeetu sharma**

### List of Participants

| S. No. | Name                   | Address and Contact Details |
|--------|------------------------|-----------------------------|
| 1.     | Mr. Vikarnt sharma     | ME Dept, SET, MUST          |
| 2.     | Ms. Sunita Kumari      | EE Dept, SET, MUST          |
| 3.     | Mr. Suneet Gupta       | CSE Dept, SET, MUST         |
| 4.     | Mr. Mukul Kant Paliwal | ME Dept, SET, MUST          |
| 5.     | Dr. Sanjeev Patwa      | CSE Dept, SET, MUST         |
| 6.     | Ms. Moumita Ghosh      | CSE Dept, SET, MUST         |
| 7.     | Mr. Gaurav Dhiman      | ECE Dept, SET, MUST         |
| 8.     | Ms. Purnima Sharma     | ECE Dept, SET, MUST         |
| 9.     | Ms. Aditi Kajala       | CSE Dept, SET, MUST         |
| 10.    | Dr. Sandeep Jaiswal    | BME Dept, SET, MUST         |
| 11.    | Dr. Vinod Maan         | CSE Dept, SET, MUST         |
| 12.    | Dr. Anand Sharma       | CSE Dept, SET, MUST         |
| 13.    | Mr. Satyajit Anand     | ECE Dept, SET, MUST         |
| 14.    | Mr. Niranjana Lal      | CSE Dept, SET, MUST         |
| 15.    | Mr. Hitesh Jangir      | CSE Dept, SET, MUST         |

## FACULTY DEVELOPMENT PROGRAMME (FDP)

ON

### Research Trends in Sensor Network and IoT

(20th – 25th August 2018)

| Date/Time  | 9:00 AM-11:00AM                                                                                                                                                                             | 11:00 am-11:30am | 11:30am-01:30pm                                                                                                                                                                             | 01:30pm-02:30pm | 02:45pm-04:45pm                                                                                                                                                                                          |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 20.08.2018 | <b>Lightening Lamp. Inaugural note Opening remarks</b>                                                                                                                                      |                  | <b>Applications of IoT &amp; IoT Protocol Stack</b><br><br>Resource Person:<br><b>Mr. Vikas Raina,</b><br>Assistant Professor,<br>ECE Dept, SET ,<br>Lakshmangarh                           |                 | <b>IoT and Data Analytics and Arduino Architecture, Demo with IoT Devices</b><br><br>Resource Person<br><b>Prof. P. P. Bhattacharya</b><br>Professor,<br>ECE Dept, SET ,<br>Lakshmangarh                 |
| 21.08.2018 | <b>Hands-on tutorial on things speak Smart Sensors for IoT</b><br><br>Resource Person:<br><b>Ms. Ranjana Thalore,</b><br>Assistant Professor,<br>ECE Dept, SET<br>Lakshmangarh              | <b>TEA BREAK</b> | <b>Real time application in IoT &amp; different Zigbee topologies, sensor devices</b><br><br>Resource Person:<br><b>Mr. Kaushik Ghosh,</b><br>Professor,<br>CSE Dept, SET ,<br>Lakshmangarh | <b>LUNCH</b>    | <b>Qualnet Simulator tool</b><br><br>Resource Person:<br><b>Ms. Ranjana Thalore,</b> Assistant Professor,<br>ECE Dept, SET ,<br>Lakshmangarh                                                             |
| 22.08.2018 | <b>Data Link Issues, looming and business opportunities, fog computing, etc.</b><br><br>Resource Person:<br><b>Mr. Vikas Raina</b><br>Assistant Professor,<br>ECE Dept, SET<br>Lakshmangarh |                  | <b>Research challenges of WSN &amp; IoT</b><br><br>Resource Person:<br><b>Ms. Ranjana Thalore,</b><br>Assistant Professor,<br>ECE Dept, SET ,<br>Lakshmangarh                               |                 | <b>System design of an IoT &amp; Simulation of IoT Scenarios using Open-Source Platforms</b><br><br>Resource Person:<br><b>Ms. Ranjana Thalore</b><br>Assistant Professor, ECE Dept, SET , Lakshmangarh. |

|            |                                                                                                                                                                     |                                                                                                                                                                                                          |  |                                                                                                                                                                                                                                      |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 23.08.2018 | <b>Smart mobility solution</b><br><br>Resource Person:<br><b>Mr. Kaushik Ghosh</b><br>Assistant Professor,<br>CSE Dept, SET<br>,<br>Lakshmanagarh                   | <b>Go Faster &amp; Go Further</b><br><br>Resource Person:<br><b>Mr. Kaushik Ghosh</b> ,<br>Assistant Professor,<br>CSE Dept, SET ,<br>Lakshmanagarh                                                      |  | <b>AI/ML in IoT &amp; IoT languages and its tools &amp; Antenna for 5G and IoT</b><br><br>Resource Person:<br><b>Dr. P. P. Bhattacharya</b> ,<br>Professor,<br>Dept. of Electronics & Communication ECE Dept, SET ,<br>Lakshmanagarh |
| 24.08.2018 | <b>CISCO Packet Tracer for IoT and LORA for IoT</b><br><br>Resource Person:<br><b>Mr. Vikas Raina</b><br>Assistant Professor<br>ECE Dept, SET<br>,<br>Lakshmanagarh | <b>Recent resear trend on IoT: discussion&amp; Case study on sensor based projects</b><br><br>Resource Person:<br><b>Ms. Ranjana Thalore</b><br>Assistant Professor,<br>ECE Dept, SET ,<br>Lakshmanagarh |  | <b>NS-3 Simulator tool</b><br><br>Resource Person:<br><b>Ms. Ranjana Thalore</b><br>Assistant Professor, ECE<br>Dept, SET , Lakshmanagarh.                                                                                           |
| 25.08.2018 | <b>Research issues and case studies in IoT</b><br><br>Resource Person:<br><b>Dr. P. P. Bhattacharya</b><br>Professor,<br>ECE Dept, SET ,<br>Lakshmanagarh           | <b>Checking the soil moisture level using Arduino, Using NFC card with Arduino</b><br><br>Resource Person:<br><b>Ms. Ranjana Thalore</b><br>Assistant Professor,<br>ECE Dept, SET ,<br>Lakshmanagarh     |  | <b>Valedictory, Quiz &amp; Certificate distribution</b><br><br>                                                                                   |

# **Research Trends in Sensor Network and IoT**

## **FACULTY DEVELOPMENT PROGRAMME**



**20<sup>th</sup>-25<sup>nd</sup> August 2018**

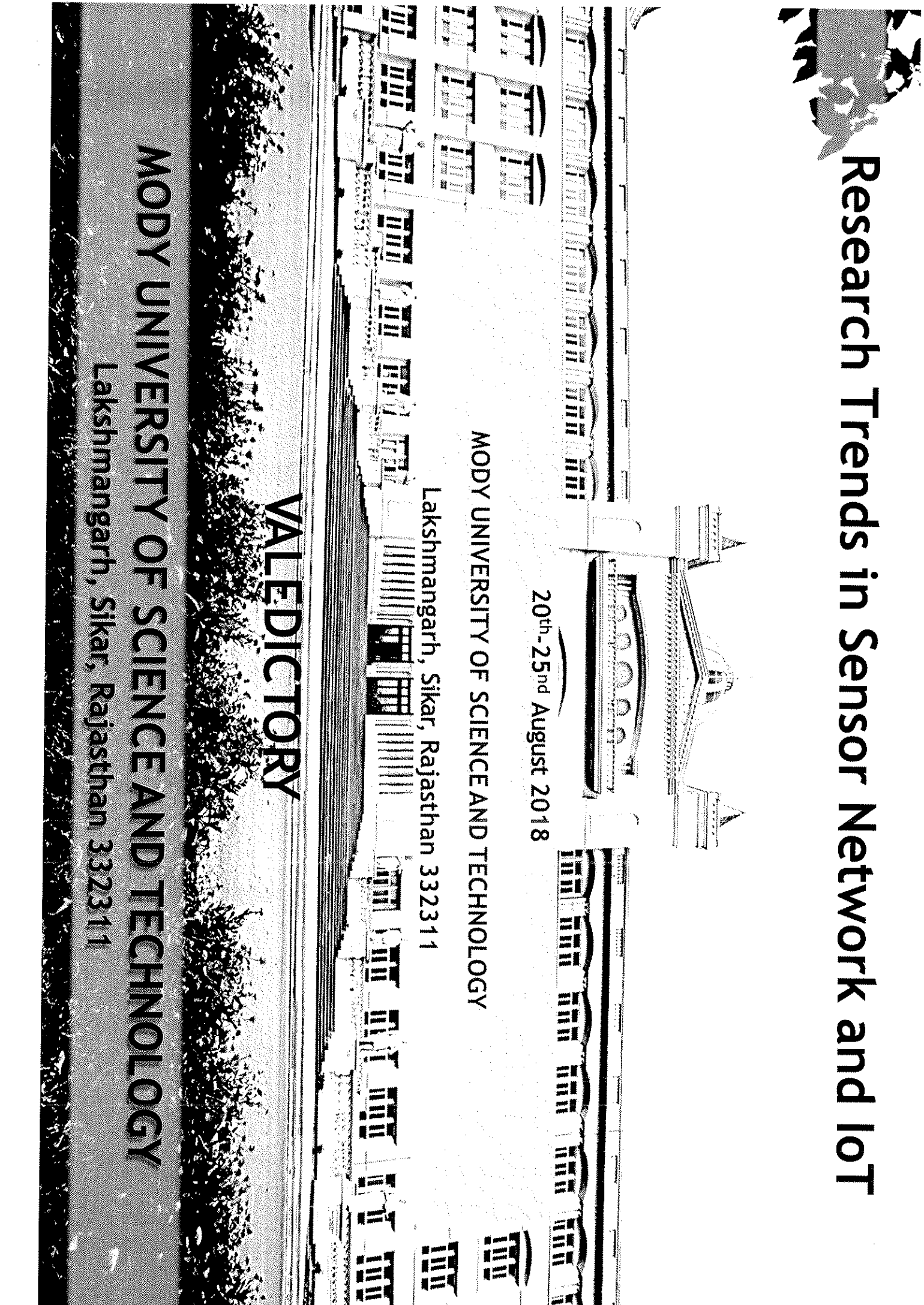
**MODY UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**Lakshmangarh, Sikar, Rajasthan 332311**

**Convenor: Dr. Rajeev Pourush, Assistant Professor, ECE Dept., SET, MUST**  
**Coordinator: Ms. Jeetu Sharma, Assistant Professor, ECE Dept., SET, MUST**



# Research Trends in Sensor Network and IoT



20<sup>th</sup>-25<sup>nd</sup> August 2018

MODY UNIVERSITY OF SCIENCE AND TECHNOLOGY

Lakshmangarh, Sikar, Rajasthan 332311

**VALEDICTORY**

MODY UNIVERSITY OF SCIENCE AND TECHNOLOGY

Lakshmangarh, Sikar, Rajasthan 332311

**Name of Resource Person:** Mr. Vikas Raina, Ms. Ranjana  
Thalore, Dr. P. P. Bhattacharya & Mr. Kaushik Ghosh





6.3.3. (57)



## Research Trends in Sensor Network and IoT

### FACULTY DEVELOPMENT PROGRAMME

20th-25th August 2018

ELECTRONICS & COMMUNICATION ENGINEERING DEPARTMENT  
SCHOOL OF ENGINEERING & TECHNOLOGY

# *Certificate of Participation*

This is to certify that ..... has participated in the five days FDP on “*Research Trends in Sensor Network and IoT*” held from 20<sup>th</sup> August 2018 to 25<sup>th</sup> August 2018 at School of Engineering and Technology, Mody University of Science and Technology, Lakshmangarh.

Dr. Rajeev Pourush  
Convener-FDP  
25<sup>th</sup> August 2018

Ms. Jeetu Sharma  
Coordinator-FDP  
25<sup>th</sup> August 2018



58

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**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Artificial Intelligence & Machine Learning in Healthcare**  
**(24<sup>th</sup> – 28<sup>th</sup> JUNE, 2019)**  
**Organized by**

**Preamble:** Mody University of Science and Technology is a state private University with the objective of encouraging and motivating the women population and to avail quality education with world-class infrastructure and facilities in an IT- savvy environment. The department of Biomedical Engineering works with a vision to emerge as a leading centre for Undergraduate and Post Graduate, study and research in Biomedical Instrumentation, Biosignal & Medical Image Processing, Biomaterials and Biosensors. It is aimed to generate skilled professionals for teaching and industrial sectors of Healthcare Technologies and other related disciplines.

**About the FDP:** The Faculty Development Programme will help to disseminate the knowledge in the domain of AI and Machine learning for Biomedical Applications. Presently, hospitals and health care systems are mostly relying upon the technologies for monitoring, diagnosis and treatment for health in the case of any unfortunate situation. Healthcare industries need highly sophisticated equipment for imaging, monitoring, treatment, and Electronic Health Record technologies for better treatment. Machine Learning is a fast-growing field of Artificial Intelligence concerned with the study and design of computer algorithms for learning good representations of data, at multiple levels of abstraction. Since data is overwhelming, organizations are struggling to extract the powerful insights they need to make smarter decisions for diagnosis and treatment. This FDP is intended to provide an insight on tools of AI & ML in Healthcare applications. The participants will be trained with hands-on approach in order to have an in-depth insight into the domain of AI & ML and expose them to Feasibility & future scope

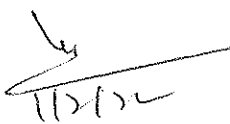
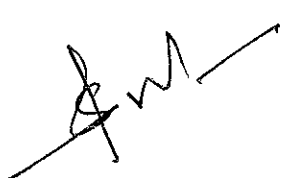
**Major Course Contents:**

- Introduction to AI & ML in Healthcare
- Python Programming & Notebook for ML
- Mathematical modelling
- Classification and analysis of Biomedical Signals
- Project Discussion on Diabetes Mellitus & EEG Classification using ML
- Neural Networks protein structure prediction, Profile hidden Markov model sequence analysis, Analysis of Microarray, learning rules for biological data, Deep Learning in Mining Biological Data, Prediction of protein structure using ML, Medical Image data classification and segmentation etc.

**Important dates:**

Last date for submission of Application: 20/06/2019

Duration : (24th – 28th JUNE, 2019)



**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Artificial Intelligence & Machine Learning in Healthcare**  
**(24<sup>th</sup> – 28<sup>th</sup> JUNE, 2019)**

**Registration Form**

1. Name : \_\_\_\_\_
2. Designation : \_\_\_\_\_
3. Institution : \_\_\_\_\_
4. Email : \_\_\_\_\_
5. Mobile No : \_\_\_\_\_
6. Address for correspondence : \_\_\_\_\_
7. Educational qualification : \_\_\_\_\_
8. Subjects taught for : \_\_\_\_\_
9. Experience in years : \_\_\_\_\_
  - i. Teaching : \_\_\_\_\_
  - ii. Research : \_\_\_\_\_
  - iii. Industry : \_\_\_\_\_

**Declaration**

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinators in case I am unable to attend the course.

Date:

Signature of the Applicant

For further enquiries please contact:  
[manishkumar.set@modyuniversity.ac.in](mailto:manishkumar.set@modyuniversity.ac.in),  
[sanddepaiswal.cet@modyuniversity.ac.in](mailto:sanddepaiswal.cet@modyuniversity.ac.in)



ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP)  
ON  
Artificial Intelligence & Machine Learning in Healthcare  
(24<sup>th</sup> – 28<sup>th</sup> JUNE, 2019)

**Organizing Committee and Resource Person**

**Convener** : Prof. (Dr.) V. K. Jain, Dean, SET, MUST

**Coordinator** : Dr. Sandeep Jaiswal, Assistant Professor & Head, BME, SET, MUST  
: Dr. Manish Kumar, Assistant Professor, BME, SET, MUST

**Resource Persons :**

| S. No | Name                   | Affiliation                                                                                                                                    | Topic of the Talk                                                                                    |
|-------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| 1     | Dr. Vinod Maan         | Associate Professor, SET, Mody University of Science & Technology, Sikar, Rajasthan<br>Email: vinodmaan.cet@modyuniversity.ac.in               | Mathematics for ML                                                                                   |
| 2     | Dr. Satyajit Anand     | Asst Professor, Dept. of ECE, SET, Mody University of Science & Technology, Sikar, Rajasthan<br>Email: satyajitanand.cet@modyuniversity.ac.in> | EEG Classification using ML                                                                          |
| 3     | Dr. Sunil Kumar Jangir | Asst. Professor, SET, Mody University of Science & Technology, Sikar, Rajasthan<br>Email: suniljangir.set@modyuniversity.ac.in                 | Supervised & Unsupervised techniques of ML                                                           |
| 4     | Dr. Manish Kumar       | Asst. Professor, SET, Mody University of Science & Technology, Sikar, Rajasthan<br>Email: manishkumar.set@modyuniversity.ac.in                 | Python Programming & Notebook for ML, Project Discussion of Diabetes Meletus Classification using ML |
| 5     | Dr. Praneet Saurbh     | Assoc. Professor, SET, Mody University of Science & Technology, Sikar, Rajasthan<br>Email: praneetsaurabh.set@modyuniversity.ac.in             | Support Vector Machine & Naïve Bayes                                                                 |
| 6     | Dr. Sandeep Jaiswal    | Head, Dept. of BME, Mody University of Science & Technology, Sikar, Rajasthan<br>Email: snadeepjaiswal@modyuniversity.ac.in                    | Introduction to AI & ML in Healthcare                                                                |



## ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP)

ON  
Artificial Intelligence & Machine Learning in Healthcare  
(24<sup>th</sup> – 28<sup>th</sup> JUNE, 2019)

### List of Participants

| S. No. | Name                   | Address and Contact Details                                                                                                                                                                                                    |
|--------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.     | Mr. Nitesh Kumar Singh | Dept. of BME, SET, Sikar, Rajasthan-332311<br><a href="mailto:niteshsingh.set@modyuniversity.ac.in">niteshsingh.set@modyuniversity.ac.in</a><br>9868427819                                                                     |
| 2.     | Ms. Jyoti Jangra       | Dept. of BME, SET, Sikar, Rajasthan-332311<br><a href="mailto:jyotijangra.set@modyuniversity.ac.in">jyotijangra.set@modyuniversity.ac.in</a><br>7988788503                                                                     |
| 3.     | Mr. Vinay Verma        | Dept. of CSE, SET, Sikar, Rajasthan-332311<br>Mody University of Science & Techno<br><a href="mailto:Vinayverma.set@modyuniversity.ac.in">Vinayverma.set@modyuniversity.ac.in</a><br>9929409751                                |
| 4.     | Dr. Dinkar Verma       | Dept. of NST, SET, Sikar, Rajasthan-332311<br><a href="mailto:dinkarverma.set@modyuniversity.ac.in">dinkarverma.set@modyuniversity.ac.in</a><br>9868427819                                                                     |
| 5.     | Sunita Rekhari         | Dept. of ECE, SET, Sikar, Rajasthan-332311<br>Mody University of Science & Technology<br><a href="mailto:sunitarekhari.cet@modyuniversity.ac.in">sunitarekhari.cet@modyuniversity.ac.in</a>                                    |
| 6.     | Dr. Vivek Pandey       | Dept. of Mechanical Engineering, SET, Sikar, Rajasthan-332311<br>Mody University of Science & Technology<br><a href="mailto:vivekpandey.set@modyuniversity.ac.in">vivekpandey.set@modyuniversity.ac.in</a><br>8218906733       |
| 7.     | Mukul Kant Paliwal     | Dept. of Mechanical Engineering, SET, Sikar, Rajasthan-332311<br>Mody University of Science & Technology<br><a href="mailto:mkpaliwal.cet@modyuniversity.ac.in">mkpaliwal.cet@modyuniversity.ac.in</a><br>8504803508           |
| 8.     | Dr. D.L. Punia         | Dept. of Electrical Engineering, SET, Sikar, Rajasthan-332311<br>Mody University of Science & Technology<br><a href="mailto:dlpunia@modyuniversity.ac.in">dlpunia@modyuniversity.ac.in</a><br>7082567452                       |
| 9.     | Dr. Ranjana Thalore    | Dept. of ECE, SET, Sikar, Rajasthan-332311<br>Mody University of Science & Technology<br><a href="mailto:ranjanathalore.cet@modyuniversity.ac.in">ranjanathalore.cet@modyuniversity.ac.in</a><br>94610597886                   |
| 10.    | Dr. Anand Sharma       | Dept. of CSE, SET, Sikar, Rajasthan-332311<br>Mody University of Science & Technology<br><a href="mailto:anandsharma.cet@modyuniversity.ac.in">anandsharma.cet@modyuniversity.ac.in</a><br>7737785474                          |
| 11.    | Mr. Vishal Sharma      | Dept. of CSE, SET, Sikar, Rajasthan-332311<br>Mody University of Science & Technology<br><a href="mailto:vishalsharma.set@modyuniversity.ac.in">vishalsharma.set@modyuniversity.ac.in</a><br>9413684516                        |
| 12.    | Mr. Rajesh Yadav       | Dept. CSE, School of Engineering and Technology, Mody University of Science and Technology, Sikar, Laxhmangarh<br><a href="mailto:rajeshyadav.cet@modyuniversity.ac.in">rajeshyadav.cet@modyuniversity.ac.in</a><br>9414439912 |



**ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP)**  
ON  
**Artificial Intelligence & Machine Learning in Healthcare**  
(24<sup>th</sup> – 28<sup>th</sup> JUNE, 2019)

**Organized By: Department of Biomedical Engineering, SET, MUST**

| Date / Session | Session -1<br>9:30 AM- 11:30 AM                                                                                                                     | Session -2<br>11:30 AM – 1:30 PM                                                                                                                          | Lunch Break<br>1:30 PM-3:00 PM | Session -1<br>3 PM to 5 PM                                                                                                                    |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| June 24, 2019  | Inauguration / Welcome Speech                                                                                                                       | <i>Introduction to Biomedical Engineering and challenges in Healthcare</i><br>Resource Person:<br><b>Dr. Sandeep Jaiswal</b> , HoD,<br>Dept. of BME, MUST | <b>Lunch Break</b>             | <i>Application of AI &amp; ML in Healthcare</i><br>Resource Person:<br><b>Dr. Sandeep Jaiswal</b> , HoD,<br>Dept. of BME, MUST                |
| June 25, 2019  | <i>Mathematics for ML</i><br>Resource Person:<br><b>Dr. Vinod Mann</b> , Assoc. Professor,<br>CSE, MUST                                             | <i>Exploratory Data Analysis and Hypothesis Testing</i><br>Resource Person:<br><b>Dr. Vinod Mann</b> , Assoc. Professor, CSE,<br>MUST                     |                                | <i>Introduction to Python Programming</i><br>Resource Person:<br><b>Dr. Manish Kumar</b> , Asst. Professor, Dept.<br>of BME, MUST             |
| June 26, 2019  | <i>Supervised &amp; Unsupervised Techniques in ML</i><br>Resource Person:<br><b>Dr. Sunil Kumar Jangir</b> , Asst.<br>Professor, Dept. of CSE, MUST | <i>Concept of Regression Techniques &amp; Decision Tree</i><br>Resource Person:<br><b>Dr. Praneet Saurabh</b> , Assoc. Professor,<br>Dept. of CSE, MUST   |                                | <i>Live session on Anaconda &amp; Google Colab</i><br>Resource Person:<br><b>Dr. Manish Kumar</b> , Asst. Professor, Dept.<br>of BME, MUST    |
| June 27, 2019  | <i>Support Vector Machine &amp; Naïve Bayes</i><br>Resource Person:<br><b>Dr. Praneet Saurav</b> , Assoc. Professor,<br>Dept. of CSE, MUST.         | <i>Artificial Neural Network &amp; Deep Learning</i><br>Resource Person:<br><b>Dr. Satyajit Anand</b> , Assistant Professor,<br>Dept. of ECE, MUST        |                                | <i>Project Discussion on EEG Classification</i><br>Resource Person:<br><b>Dr. Satyajit Anand</b> , Assistant Professor,<br>Dept. of ECE, MUST |
| June 28, 2019  | <i>Improved Artificial Neural Network</i><br>Resource Person:<br><b>Dr. Manish Kumar</b> , Asst. Professor,<br>Dept. of BME, MUST                   | <i>Project Discussion on Diabetes Meletus Classification</i><br>Resource Person:<br><b>Dr. Manish Kumar</b> , Asst. Professor, Dept.<br>of BME, MUST      |                                | Valedictory<br>3 PM to 5 PM                                                                                                                   |



**ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP)**  
ON  
**Artificial Intelligence & Machine Learning in Healthcare**  
(24<sup>th</sup> – 28<sup>th</sup> JUNE, 2019)

**Organizing Committee**

**Convener** : Prof. (Dr.) V. K. Jain, Dean, SET, MUST

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: Dr. Manish Kumar, Assistant Professor, BME, SET, MUST

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| 1     | Dr. Vinod Maan         | Associate Professor, SET, Mody University of Science & Technology, Sikar, Rajasthan<br>Email: vinodmaan.cet@modyuniversity.ac.in              | Mathematics for ML                                                                                   |
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| 6     | Dr. Sandeep Jaiswal    | Head, Dept. of BME, Mody University of Science & Technology, Sikar, Rajasthan<br>Email: snadeepjaiswal@modyuniversity.ac.in                   | Introduction to AI & ML in Healthcare                                                                |



ONLINE FACULTY DEVELOPMENT PROGRAMME  
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(24<sup>th</sup> – 28<sup>th</sup> JUNE, 2019)

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| 12.    | Mr. Rajesh Yadav       | Dept. CSE, School of Engineering and Technology, Mody University of Science and Technology, Sikar, Laxhmangarh<br><a href="mailto:rajeshyadav.cet@modyuniversity.ac.in">rajeshyadav.cet@modyuniversity.ac.in</a><br>9414439912 |

## REGISTRATION FORM

### FACULTY DEVELOPMENT PROGRAM ON

Artificial Intelligence & Machine  
Learning in Healthcare  
(24th – 28th JUN., 2019)

## ADVISORY COMMITTEE

### CONVENOR

Director, SET  
Prof. V. K. Jai

### COORDINATOR

Dean, SET  
Dr. Sandeep Jaiswal

### COCOORDINATOR

HOD, BME  
Dr. Manish Kumar  
Assistant Professor, BME

### Resource Person

Dr. Vinod Maan, Associate Professor, CSE

Dr. Satyajit Anand, Assistant Professor, ECE

Dr. Sunil Kumar Jangir, Assistant Professor,

CSE

Dr. Praneet Saurbh, Associate Professor, CSE

## FACULTY DEVELOPMENT PROGRAM ON

Artificial Intelligence & Machine  
Learning in Healthcare

(24th – 28th JUN., 2019)



### Organized by

Department of Biomedical Engineering,  
School of Engineering & Technology,  
Bhubaneswar

### Signature of the Applicant

Signature of Head of the Institution/Department  
(Photocopies of this form can be used)

### ADDRESS FOR COMMUNICATION

Dr. Manish Kumar

(Coordinator)

mail:manishkumar.set@modyuniversity.ac.in

Dr. Sandeep Jaiswal

(Coordinator)

mail: sandeepjaiswal.cet@modyuniversity.ac.in

Department of Biomedical Engineering School of  
Engineering & Technology, Mody University of  
Science & Technology, Lachhamangarh, Sikar,  
Rajasthan-332311, www.modyuniversity.ac.in

### IMPORTANT DATES

The last date for the receipt of duly forwarded  
applications: 10<sup>th</sup> JUN. 2019

Intimation of Selection: 21<sup>st</sup> JUN 2019



Mody University of Science & Technology  
Lachhamangarh, Sikar, Rajasthan-332311,  
www.modyuniversity.ac.in

## PREAMBLE

Mody University of Science and Technology is a state private University with the objective of encouraging and motivating the women population and to avail quality education with world-class infrastructure and facilities in an IT-savvy environment. The department of Biomedical Engineering works with a vision to emerge as a leading centre for Undergraduate and Post Graduate, study and research in Biomedical Instrumentation, Biosignal & Medical Image Processing, Biomaterials and Biosensors. It is aimed to generate skilled professionals for teaching and industrial sectors of Healthcare Technologies and other related disciplines.

## ABOUT THE COURSE

The FDP on This faculty development program (FDP) is devoted to address the need of biotechnology and biochemistry in crop improvement. Presently, hospitals and health care systems are mostly relying upon the technologies for diagnosing a patient also for monitoring their health parameters in the case of any unfortunate situation. Healthcare industries need highly sophisticated imaging machines like MRI, CT, and Ultrasound. Similarly, they need a patient monitoring system, assistive devices, and EHR like technologies for managing

patients. Analytical equipment is also available for clinical labs so that any pathogens can be identified, also such instruments can be used for characterization purposes. This FDP is intended to provide an insight on tools of AI & ML in Healthcare applications with hands-on experience.

## COURSE CONTENT

- Introduction to AI & ML in Healthcare
- Mathematics for Machine Learning
- Python Programming & Notebook for ML
- Supervised & Unsupervised techniques of ML
- Concept of Regression Techniques and Decision Tree
- Support Vector Machine & Naïve Bayes
- Artificial Neural Network & Deep Learning
- Project Discussion on Diabetes Mellitus & EEG Classification using ML

## DURATION AND VENUE

The duration of the workshop is 1 weeks (5 working days.) It will begin tentatively on Thursday 24<sup>th</sup> JUN. at 09:00 hrs and end at 17:00 hrs, 2019.

The venues for the workshop will be ABB, SET.

## WHO SHOULD ATTEND

The workshop will benefit faculty colleagues who are teaching **MACHINE LEARNING** in their colleges. They should have taught this subject at least once and should be familiar with the syllabi and examination pattern of their own college or university.

## HOW TO REACH

The college is located at Lachhamangarh, Sikar, Rajasthan, India about 35 km. away from Sikar and Situate on Jaipur-Bikaner Highway.



**ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP)**  
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**Artificial Intelligence & Machine Learning in Healthcare**  
(24<sup>th</sup> – 28<sup>th</sup> JUNE, 2019)

**Organized By: Department of Biomedical Engineering, SET, MUST**

| Date / Session | Session -1<br>9:30 AM-11:30 AM                                                                                     | Session -2<br>11:30 AM – 1:30 PM                                                                                                       | Lunch Break<br>1:30 PM-3:00 PM | Session -1<br>3 PM to 5 PM                                                                                     |
|----------------|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------------------------------------------------------------------|
| June 24, 2019  | Inauguration / Welcome Speech                                                                                      | <i>Introduction to Biomedical Engineering and challenges in Healthcare</i> , Dr. Sandeep Jaiswal, HOD, BME, SET, MUST                  | Lunch Break                    | <i>Mathematics for ML</i> , Dr. Vinod Mann, Assoc. Professor, CSE, SET, MUST                                   |
| June 25, 2019  | <i>Supervised &amp; Unsupervised Techniques in ML</i> , Dr. Sunil Kumar Jangir, Asst. Professor CSE, SET, MUST     | <i>Concept of Regression Techniques &amp; Decision Tree</i> , Dr. Praneet Saurabh, Assoc. Professor, CSE, SET, MUST                    |                                | <i>Introduction to Python Programming</i> , Dr. Manish Kumar, Asst. Professor, BME, SET, MUST                  |
| June 26, 2019  | <i>Exploratory Data Analysis and Hypothesis Testing</i> , Dr. Vinod Mann, Assoc. Professor, CSE, SET, MUST         | <i>Live session on Anaconda &amp; Google Colab</i> , Dr. Manish Kumar, Asst. Professor, Dept. BME, MUST                                |                                | <i>Artificial Neural Network &amp; Deep Learning</i> , Dr. Satyajit Anand, Assistant Professor, ECE, SET, MUST |
| June 27, 2019  | <i>Support Vector Machine &amp; Naive Bayes</i> , Dr. Praneet Saurabh, Assoc. Professor, CSE, SET, MUST            | <i>Application of AI &amp; ML in Healthcare</i> , Dr. Sandeep Jaiswal, HOD, BME, SET, MUST                                             |                                | <i>Project Discussion on EEG Classification</i> , Dr. Satyajit Anand, Assistant Professor, Dept. of ECE, MUST  |
| June 28, 2019  | <i>Improved Artificial Neural Network</i> , Resource Person: Dr. Manish Kumar, Asst. Professor, Dept. of BME, MUST | <i>Project Discussion on Diabetes Mellitus Classification</i> , Resource Person: Dr. Manish Kumar, Asst. Professor, Dept. of BME, MUST |                                | Valedictory                                                                                                    |





FACULTY DEVELOPMENT PROGRAMME (FDP)  
ON  
Artificial Intelligence & Machine Learning in Healthcare  
(24<sup>th</sup> – 28<sup>th</sup> JUN., 2019)

Registration Form

|    |                            |                                            |
|----|----------------------------|--------------------------------------------|
| 1. | Name                       | Nitesh Kumar Singh                         |
| 2. | Designation                | Lecturer                                   |
| 3. | Institution                | Mody University of Science & Technology    |
| 4. | Email                      | niteshsingh.set@modyuniversity.ac.in       |
| 5. | Mobile No                  | 9868427819                                 |
| 6. | Address for correspondence | Dept. of BME, SET, Sikar, Rajasthan-332311 |
| 7. | Educational qualification  | M. Tech                                    |
| 8. | Subjects taught for        | Biomaterial, Instrumentation               |
| 9. | Experience in years        | Mody University of Science & Technology    |
|    | i. Teaching                | 02                                         |
|    | ii. Research               |                                            |
|    | iii. Industry              |                                            |

**Declaration**

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinators in case I am unable to attend the course.

Nitesh

Signature of the Applicant

Date: 05/06/2019

For further enquiries please contact:  
manishkumar.set@modyuniversity.ac.in,  
sandeepjaiswal.set@modyuniversity.ac.in



FACULTY DEVELOPMENT PROGRAMME (FDP)  
ON  
Artificial Intelligence & Machine Learning in Healthcare  
(24<sup>th</sup> – 28<sup>th</sup> JUN., 2019)

Registration Form

|                                |                                             |
|--------------------------------|---------------------------------------------|
| 10. Name                       | Jyoti Jangra                                |
| 11. Designation                | Lecturer                                    |
| 12. Institution                | Mody University of Science & Technology     |
| 13. Email                      | jyotijangra.set@modyuniversity.ac.in        |
| 14. Mobile No                  | 7988788503                                  |
| 15. Address for correspondence | Dept. of bmeE, SFT, Sikar, Rajasthan-332311 |
| 16. Educational qualification  | M.tech                                      |
| 17. Subjects taught for        | Biomedical Engineering                      |
| 18. Experience in years        | Mody University of Science & Technology     |
| iv. Teaching                   | I                                           |
| v. Research                    |                                             |
| vi. Industry                   |                                             |

Declaration

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinators in case I am unable to attend the course.

Signature of the Applicant

Date: 07/06/2019

For further enquiries please contact:  
manishkumar.set@modyuniversity.ac.in,  
sandeepjaiswal.cet@modyuniversity.ac.in



**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Artificial Intelligence & Machine Learning in Healthcare**  
**(24<sup>th</sup> – 28<sup>th</sup> JUN., 2019)**

**Registration Form**

- |                               |   |                                                                               |
|-------------------------------|---|-------------------------------------------------------------------------------|
| 1. Name                       | : | Vinav Vema                                                                    |
| 2. Designation                | : | Assistant Professor                                                           |
| 3. Institution                | : | CSE SET                                                                       |
| 4. Email                      | : | Vinayverma.set@modyuniversity.ac.in                                           |
| 5. Mobile No                  | : | 9929409751                                                                    |
| 6. Address for correspondence | : | Dept. of CSE, School of engineering and<br>Technology MUST Lakshmangarh Sikar |
| 7. Educational qualification  | : | BE Mtech(CSE)                                                                 |
| 8. Subjects taught for        | : | UG ,PG                                                                        |
| 9. Experience in years        | : | 9 Years                                                                       |
| i. Teaching                   | : | 9 Years                                                                       |
| ii. Research                  | : |                                                                               |
| iii. Industry                 | : |                                                                               |

**Declaration**

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinators in case I am unable to attend the course.

Date: 05/06/2019

Signature of the Applicant

For further enquiries please contact:  
[manishkumar.set@modyuniversity.ac.in](mailto:manishkumar.set@modyuniversity.ac.in),  
[sanddepjaiswal.cet@modyuniversity.ac.in](mailto:sanddepjaiswal.cet@modyuniversity.ac.in)



**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Artificial Intelligence & Machine Learning in Healthcare**  
(24<sup>th</sup> – 28<sup>th</sup> JUN., 2019)

**Registration Form**

19. Name : Dr. Dinkar Verma

20. Designation : Assistant Professor

21. Institution : Mody University of Science & Technology

22. Email : dinkarverma.set@modyuniversity.ac.in

23. Mobile No : 9868427819

24. Address for correspondence : Dept. of NST, SET, Sikar, Rajasthan-332311

25. Educational qualification : Ph.D.

26. Subjects taught for : NST

27. Experience in years : 3

vii. Teaching : 02

viii. Research : 01

ix. Industry :

**Declaration**

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinators in case I am unable to attend the course.

Date: 05/06/2019

Signature of the Applicant

For further enquiries please contact:  
[manishkumar.set@modyuniversity.ac.in](mailto:manishkumar.set@modyuniversity.ac.in),  
[sanddepjaiswal.cet@modyuniversity.ac.in](mailto:sanddepjaiswal.cet@modyuniversity.ac.in)



**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Artificial Intelligence & Machine Learning in Healthcare**  
**(24<sup>th</sup> – 28<sup>th</sup> JUN., 2019)**

**Registration Form**

|                                |   |                                            |
|--------------------------------|---|--------------------------------------------|
| 46. Name                       | : | SUNITA REKHARI                             |
| 47. Designation                | : | Assistant Professor                        |
| 48. Institution                | : | Mody University of Science & Technology    |
| 49. Email                      | : | sunitarekhari.cet@modyuniversity.ac.in     |
| 50. Mobile No                  | : |                                            |
| 51. Address for correspondence | : | Dept. of ECE, SET, Sikar, Rajasthan-332311 |
| 52. Educational qualification  | : | Ph.D.                                      |
| 53. Subjects taught for        | : | Electronics Communication Engineering      |
| 54. Experience in years        | : | Mody University of Science & Technology    |
| xvi. Teaching                  | : | 08                                         |
| xvii. Research                 | : |                                            |
| xviii. Industry                | : |                                            |

**Declaration**

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinators in case I am unable to attend the course.

Date: 10/06/2019

Signature of the Applicant

For further enquiries please contact:  
[manishkumar.set@modyuniversity.ac.in](mailto:manishkumar.set@modyuniversity.ac.in),  
[sanddepjaiswal.cet@modyuniversity.ac.in](mailto:sanddepjaiswal.cet@modyuniversity.ac.in)



**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Artificial Intelligence & Machine Learning in Healthcare**  
**(24<sup>th</sup> – 28<sup>th</sup> JUN., 2019)**

**Registration Form**

- |                               |   |                                      |
|-------------------------------|---|--------------------------------------|
| 1. Name                       | : | Dr. Vivek Pandev                     |
| 2. Designation                | : | Assistant Professor                  |
| 3. Institution                | : | SET, MUST                            |
| 4. Email                      | : | vivekpandey.set@modyuniversity.ac.in |
| 5. Mobile No                  | : | 8218906733                           |
| 6. Address for correspondence | : | Mody University, Laxmangarh, Sikar   |
| 7. Educational qualification  | : | PhD, M-Tech, B-Tech                  |
| 8. Subjects taught for        | : | Mechanical Engineering               |
| 9. Experience in years        | : | 8                                    |
| i. Teaching                   | : | 5                                    |
| ii. Research                  | : | 3                                    |
| iii. Industry                 | : | NA                                   |

**Declaration**

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinators in case I am unable to attend the course.

Date: 05/06/2019

V Pandey  
Signature of the Applicant

For further enquiries please contact:  
[manishkumar.set@modyuniversity.ac.in](mailto:manishkumar.set@modyuniversity.ac.in),  
[sanddepjaiswal.cet@modyuniversity.ac.in](mailto:sanddepjaiswal.cet@modyuniversity.ac.in)



**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Artificial Intelligence & Machine Learning in Healthcare**  
**(24<sup>th</sup> – 28<sup>th</sup> JUN., 2019)**

**Registration Form**

- |                               |   |                                    |
|-------------------------------|---|------------------------------------|
| 1. Name                       | : | Mukul Kant Paliwal                 |
| 2. Designation                | : | Assistant Professor                |
| 3. Institution                | : | MUST, SET                          |
| 4. Email                      | : | mkpaliwal.cet@modyuniversity.ac.in |
| 5. Mobile No                  | : | 8504803508                         |
| 6. Address for correspondence | : | Mody University                    |
| 7. Educational qualification  | : | M.Tech, B.Tech                     |
| 8. Subjects taught for        | : | Mechanical Engineering             |
| 9. Experience in years        | : | 9 Years                            |
| i. Teaching                   | : | 9 Years                            |
| ii. Research                  | : |                                    |
| iii. Industry                 | : |                                    |

**Declaration**

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinators in case I am unable to attend the course.

Date: 05/06/2019

Signature of the Applicant

For further enquiries please contact:  
[manishkumar.set@modyuniversity.ac.in](mailto:manishkumar.set@modyuniversity.ac.in),  
[sanddepjaiswal.cet@modyuniversity.ac.in](mailto:sanddepjaiswal.cet@modyuniversity.ac.in)



**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Artificial Intelligence & Machine Learning in Healthcare**  
**(24<sup>th</sup> – 28<sup>th</sup> JUN., 2019)**

**Registration Form**

|                                |   |                                            |
|--------------------------------|---|--------------------------------------------|
| 55. Name                       | : | Dr. Devi Lal punia                         |
| 56. Designation                | : | Assistant Professor                        |
| 57. Institution                | : | Mody University of Science & Technology    |
| 58. Email                      | : | dlpunia.set@modyuniversity.ac.in           |
| 59. Mobile No                  | : | 9413684516                                 |
| 60. Address for correspondence | : | Dept. of ECE, SET, Sikar, Rajasthan-332311 |
| 61. Educational qualification  | : | Ph.D.                                      |
| 62. Subjects taught for        | : | Electronics Communication Engineering      |
| 63. Experience in years        | : | _____05_____                               |
| xix. Teaching                  | : | _____05_____                               |
| xx. Research                   | : | _____                                      |
| xxi. Industry                  | : | _____                                      |

**Declaration**

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinators in case I am unable to attend the course.

Date: 10/06/2019

Signature of the Applicant

For further enquiries please contact:  
[manishkumar.set@modyuniversity.ac.in](mailto:manishkumar.set@modyuniversity.ac.in),  
[sanddepaiswal.cet@modyuniversity.ac.in](mailto:sanddepaiswal.cet@modyuniversity.ac.in)



**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Artificial Intelligence & Machine Learning in Healthcare**  
(24<sup>th</sup> – 28<sup>th</sup> JUN., 2019)

**Registration Form**

|                                |   |                                            |
|--------------------------------|---|--------------------------------------------|
| 28. Name                       | : | Dr. Ranjana Thalore                        |
| 29. Designation                | : | Assistant Professor                        |
| 30. Institution                | : | Mody University of Science & Technology    |
| 31. Email                      | : | ranjanathalore.cet@modyuniversity.ac.in    |
| 32. Mobile No                  | : | 94610597886                                |
| 33. Address for correspondence | : | Dept. of ECE, SET, Sikar, Rajasthan-332311 |
| 34. Educational qualification  | : | Ph.D.                                      |
| 35. Subjects taught for        | : | Communication Engineering                  |
| 36. Experience in years        | : |                                            |
| x. Teaching                    | : | 05                                         |
| xi. Research                   | : |                                            |
| xii. Industry                  | : |                                            |

**Declaration**

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinators in case I am unable to attend the course.

Date: 19/06/2019

Signature of the Applicant

For further enquiries please contact:

[manishkumar.set@modyuniversity.ac.in](mailto:manishkumar.set@modyuniversity.ac.in)

[sanddepjaiswal.cet@modyuniversity.ac.in](mailto:sanddepjaiswal.cet@modyuniversity.ac.in)



**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Artificial Intelligence & Machine Learning in Healthcare**  
**(24<sup>th</sup> – 28<sup>th</sup> JUN., 2019)**

**Registration Form**

37. Name : Dr. Anand Sharma

38. Designation : Assistant Professor

39. Institution : Mody University of Science & Technology

40. Email : anandsharma.cet@modyuniversity.ac.in

41. Mobile No : 7737785474

42. Address for correspondence : Dept. of CSE, SET, Sikar, Rajasthan-332311

43. Educational qualification : Ph.D.

44. Subjects taught for : CSE

45. Experience in years : 10

    xiii. Teaching : 8

    xiv. Research :

    xv. Industry :

**Declaration**

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinators in case I am unable to attend the course.

Date: 10/06/2019

Signature of the Applicant

For further enquiries please contact:

[manishkumar.set@modyuniversity.ac.in](mailto:manishkumar.set@modyuniversity.ac.in)

[sanddepjaiswal.cet@modyuniversity.ac.in](mailto:sanddepjaiswal.cet@modyuniversity.ac.in)



**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Artificial Intelligence & Machine Learning in Healthcare**  
**(24<sup>th</sup> – 28<sup>th</sup> JUN., 2019)**

**Registration Form**

64. Name : Dr. Vishal Sharma

65. Designation : Assistant Professor

66. Institution : Mody University of Science & Technology

67. Email : vishalsharma.set@modyuniversity.ac.in

68. Mobile No : 7737785474

69. Address for correspondence : Dept. of CSE, SET, Sikar, Rajasthan-332311

70. Educational qualification : Ph.D.

71. Subjects taught for : CSE

72. Experience in years : 10

xxii. Teaching : 8

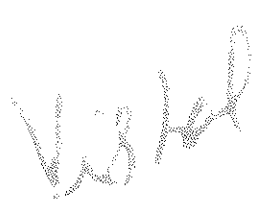
xxiii. Research :

xxiv. Industry :

**Declaration**

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinators in case I am unable to attend the course.

Date: 9/06/2019

  
Signature of the Applicant

For further enquiries please contact:  
[manishkumar.set@modyuniversity.ac.in](mailto:manishkumar.set@modyuniversity.ac.in),  
[sanddepjaiswal.cet@modyuniversity.ac.in](mailto:sanddepjaiswal.cet@modyuniversity.ac.in)



**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Artificial Intelligence & Machine Learning in Healthcare**  
**(24<sup>th</sup> – 28<sup>th</sup> JUN., 2019)**

**Registration Form**

- |                               |   |                                      |
|-------------------------------|---|--------------------------------------|
| 1. Name                       | : | Mr. Raiesh Yadav                     |
| 2. Designation                | : | Lecturer                             |
| 3. Institution                | : | CSE, SET , MUST Rajasthan            |
| 4. Email                      | : | raieshyadav.cet@modyuniversity.ac.in |
| 5. Mobile No                  | : | 9414439912                           |
| 6. Address for correspondence | : | CSE, SET , MUST Rajasthan            |
| 7. Educational qualification  | : | MCA, M. Tech.                        |
| 8. Subjects taught for        | : | UG and PG                            |
| 9. Experience in years        | : | 13                                   |
| i. Teaching                   | : | 10                                   |
| ii. Research                  | : |                                      |
| iii. Industry                 | : | 3                                    |

**Declaration**

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinators in case I am unable to attend the course.

*Raiesh Yadav.*

Date: 05/06/2019

Signature of the Applicant

For further enquiries please contact:  
[manishkumar.set@modyuniversity.ac.in](mailto:manishkumar.set@modyuniversity.ac.in)  
[sanddepaiswal.cet@modyuniversity.ac.in](mailto:sanddepaiswal.cet@modyuniversity.ac.in)

**REPORT ON**  
**FACULTY DEVELOPMENT PROGRAMME ON ARTIFICIAL INTELLIGENCE &**  
**MACHINE LEARNING IN HEALTHCARE (24<sup>th</sup> – 28<sup>th</sup> JUNE, 2019)**

**Organized by**  
**Department of Biomedical Engineering**  
**School of Engineering and Technology**  
**Mody University of Science and Technology**

Department of Biomedical Engineering, SET, Mody University of Science and Technology, Lakshmangarh ( Sikar) Rajasthan during 24th – 28th JUNE, 2019 in ABB Building. Twelve faculty members participated in this FDP program. The FDP was inaugurated in the morning on 24th June 2019 with lamp lighting by hands of Prof. V. K. Jain ( Dean SET), Dr. Sandeep Jaiswal (HoD, BME), Dr. Manish Kumar, Dr. Vinod Maan ( Resource person), followed Saraswati Vandana. In welcome speech, Prof. V. K. Jain shared his views with the faculty participants that if faculty wants to develop themselves and their students, then attending such faculty development programmes would enhance their skills of teaching concepts practically. Sir further shared that it helps to improve the performance of faculty in teaching and highlighted the importance and objectives of organizing faculty development programmes. He briefed the participants about the subjects chosen for the FDP and highlighted the reasons and importance of the same. In the inaugural speech, Dr. Sandeep Jaiswal shared his views on faculty development. He further added that this programme will provide special benefits to faculty members. The inauguration programme ended with vote of thanks by Dr. Manish Kumar. Dr. Sandeep Jaiswal delivered a talk on *Introduction to Biomedical Engineering and challenges in Healthcare day1* in first session and in second session Dr. Vinod Maan elaborates on *Mathematics for machine learning*. Dr. Sunil Kumar Jangir, Dr. Manish Kumar, Dr. Satyajit Anand and Dr. Praneet Saurabh also delivered lectures during FDP. Valedictory session was on 28th June 2019 at 2:30 pm, vote of thanks was delivered by Dr. Manish Kumar and he shows his gratitude to the management, resource persons, participants and supporting staff who made this programme successful and called participants for their feedbacks. The faculty development programme ended with National Anthem.





Faculty Development Program

On

Artificial Intelligence and Machine Learning  
in Healthcare

Certificate of Participation



This is to certify that \_\_\_\_\_ from \_\_\_\_\_  
has participated in the Faculty Development Programme on "Artificial Intelligence and  
Machine Learning in Healthcare" conducted from 24th to 28th June 2019.

Organized by

Department of Biomedical Engineering  
School of Engineering and Technology  
Mody University of Science and Technology  
Lakshmanagarh (Sikar) Rajasthan 332311 India

Dr. Manish Kumar  
Coordinator

Dr. Sandeep Jaiswal  
Coordinator

28-06-2019

Prof. (Dr.) V. K. Jain  
Dean SET & Convener

The Dean

01.09.2018

School of Liberal Arts

Mody University of Science and Technology, Sikar

**Subject:** For conducting a five-day Faculty Development programme on "Emerging Trends in Biotechnology and Applications to Human Welfare".

Dear Sir

With reference to the subject, we would like to put up a proposal for five days faculty development program on "Emerging Trends in Biotechnology and Applications to Human Welfare". This faculty development program (FDP) is devoted to address the need of technological developments in Biotechnology and its allied fields. The aim of the Faculty Development Programme (FDP) is designed to develop new approaches and advances in various fields of biotechnology and train the faculty who wish to upgrade the skills and knowledge. This programme will be helpful to strengthen the practical knowledge and update the recent research in biotechnology.

As this FDP aims to provide teachers with scientific aptitude for their own professional growth and the benefit of their students, we look for your kind approval of the same.

Further we will chalk out full proposal like resource persons, participant's venue, expenses and dates, etc.

Thanking you in anticipation

Thanks & Regards

Dr. Navneet Joshi, Coordinator

Mob: 9982776102

Request for N/A

Dr. Navneet Joshi  
01.09.18

11/12

Approved

(Prof. Atul Kumar DEAN)



## FACULTY DEVELOPMENT PROGRAMME (FDP)

### ON Emerging Trends in Biotechnology and Applications to Human Welfare

(September 24-28, 2018)

Organized by

Department of Biosciences, College of Arts, Science and Humanities (CASH)  
Mody University of Science and Technology  
Lakshmanagarh, Sikar, Rajasthan. 332311

**Preamble:** Mody University of Science and Technology is a state private University with the objective of encouraging and motivating the women population and to avail quality education with world-class infrastructure and facilities in an IT- savvy environment. The department of biosciences works with a vision to emerge as a leading centre for Undergraduate and Post Graduate Programs and research in Environmental Biotechnology, Plant Biotechnology, Microbiology, Bio-catalysis & Bio transformation. It is aimed to generate skilled professionals for teaching and industrial sectors of Biotechnology, Microbiology, Food Technology and other related disciplines.

**About the FDP:** This faculty development program (FDP) is devoted to address the need of technological developments in Biotechnology and its allied fields. The aim of the Faculty Development Programme (FDP) is designed to develop new approaches and advances in various fields of biotechnology and train the faculty who wish to upgrade the skills and knowledge. This programme will be helpful to strengthen the practical knowledge and update the recent research in biotechnology. The course content is intended to provide an overview of recent advancement in the frontier areas of biotechnology. This programme will include lectures delivered by the experts, covering the theme of FDP programme. Biotechnology is an advanced frontier branch essentially needed in industries involved with the research, development, innovation and manufacturing of biomolecules.

Hence it is need of the time to update faculty members and professionals with recent developments / advancements in emerging areas of biological sciences. Participants would learn the recent advancements in vaccines, enzymes, food & agricultural products, pharmaceutical, energy, pollution control, metallurgy, oil extraction, ocean research, space research, defense etc.

#### Topics:

- Bioprocess Technology
- Animal Biotechnology
- Medical and Immunobiotechnology
- Nanobiotechnology
- Pharmaceutical Biotechnology
- Bioinformatics
- Environmental Biotechnology
- Plant and Agricultural Biotechnology
- Industrial Biotechnology

#### Important dates:

Last date for submission of Application: 18/09/2018

Duration : September 24-28, 2018

Faculty Development Program

on

# EMERGING TRENDS IN BIOTECHNOLOGY AND APPLICATIONS TO HUMAN WELFARE

**September 24-28, 2018**

About University: Mody University of Science and Technology is a state private University with the objective of encouraging and motivating the women population and to avail quality education with world-class infrastructure and facilities in an IT- savvy environment. The department of biosciences works with a vision to emerge as a leading centre for Undergraduate and Post Graduate Programs and research in Environmental Biotechnology, Plant Biotechnology, Microbiology, Bio-catalysis & Bio transformation. It is aimed to generate skilled professionals for teaching and industrial sectors of Biotechnology, Microbiology, Food Technology and other related disciplines.

About FDP: This faculty development program (FDP) is devoted to address the need of technological developments in Biotechnology It is designed to develop new approaches and advances in various fields of biotechnology and train the faculty who wish to upgrade the skills and knowledge. This programme will be helpful to strengthen the practical knowledge and update the recent research in biotechnology. The course content is intended to provide an overview of recent advancement in the frontier areas of biotechnology. This programme will include lectures delivered by the experts. Biotechnology is an advanced frontier branch essentially needed in industries involved with the research, development, innovation and manufacturing of biomolecules.

Who can participate?

Faculties and research scholars  
Targeted Topics

- ❖ Bioprocess Technology
- ❖ Animal Biotechnology
- ❖ Environmental Biotechnology
- ❖ NanoBiotechnology
- ❖ Pharmaceutical Biotechnology
- ❖ Bioinformatics
- ❖ Medical and ImmunoBiotechnology
- ❖ Plant and Agricultural Biotechnology
- ❖ Industrial Biotechnology

Coordinator: Dr.Navneet Joshi

Email: navneetjoshi.cash@modyuniversity.ac.in

Contact number: +91-9982776102

**\*NO REGISTRATION FEES\***

\*Certificate shall be provided to all the participants after the completion of workshop who will successfully register and attend.



**Department of Bioscience**  
**College of Arts Science and Humanities**  
**Mody University of Science and Technology**

Five Days Faculty Development Program  
on

***“Emerging Trends in Biotechnology and Applications to Human Welfare”***

**Sep 24-28, 2018**

| 24/09/18           |                        |                                                                  |                 |
|--------------------|------------------------|------------------------------------------------------------------|-----------------|
| Session            | Speaker                | Title                                                            | Timing          |
| Inaugural Ceremony |                        |                                                                  | 10:00am-10:35am |
| Lecture 1          | Dr. RK Gaur            | Bioprocess technology and its Applications                       | 10:40am-12:00pm |
| Lecture 2          | Dr. KP Sharma          | Introduction to Downstream Processing                            | 12:00pm- 1:30pm |
| Lecture 3          | Dr. R S Chundawat      | Purification Methods: Chromatographic Techniques                 | 2:30pm-4:00pm   |
| Lecture 4          | Dr. Rakesh K Verma     | Biosafety, Regulations and IPR                                   | 4:00-5:30 pm    |
| 25/09/18           |                        |                                                                  |                 |
| Lecture 1          | Dr. Harish Dhingra     | Animal Cell Culture –Boom to new era                             | 10:30am-12:00pm |
| Lecture 2          | Dr. Amrita Narula      | Microbial BioTechnology and its Applications                     | 12:00pm- 1:30pm |
| Lecture 3          | Dr. Sunita Rao         | Role of Microbes in Environmental Remediation                    | 2:30pm-4:00pm   |
| Lecture 4          | Dr. KP Sharma          | Microbial Respiration and Fermentation                           | 4:00-5:30 pm    |
| 26/09/18           |                        |                                                                  |                 |
| Lecture 1          | Dr. K.P. Sharma        | Applications of Medical and Immune Biotechnology                 | 10:30am-12:00pm |
| Lecture 2          | Dr. Bhupendra K Goyal  | Immunology fundamental concepts and anatomy of the immune system | 12:00pm- 1:30pm |
| Lecture 3          | Dr. R S Chundawat      | Antigen-antibody interactions                                    | 2:30pm-4:00pm   |
| Lecture 4          | Dr. Dr. Rakesh K Verma | Vaccinology and its Applications                                 | 4:00-5:30 pm    |



**Department of Bioscience  
School of Liberal Arts and Science  
Mody University of Science and Technology**

Five Days Faculty Development Program  
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*"Emerging Trends in Biotechnology and Applications to Human Welfare"*  
**Sep 24-28, 2018**

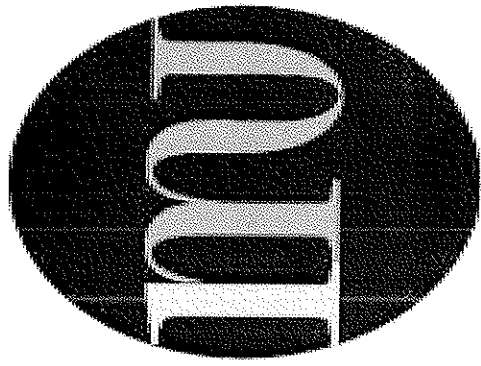
| <b>27/09/18</b>     |                       |                                                   |                 |
|---------------------|-----------------------|---------------------------------------------------|-----------------|
| Lecture 1           | Dr. Rakesh K Verma    | Bioinformatics and its Applications               | 10:30am-12:00pm |
| Lecture 2           | Dr. Bhupendra K Goyal | Nanobiotechnology and its Applications            | 12:00pm- 1:30pm |
| Lecture 3           | Dr. Harish Dhingra    | NanoBiomaterials & its Applications               | 2:30pm-3:30pm   |
| Lecture 4           | Dr. Sunita Rao        | PhytonanoBiotechnology and its Applications       | 4:00-5:30 pm    |
| <b>28/09/18</b>     |                       |                                                   |                 |
| Lecture 1           | Dr. Harish Dhingra    | Pharmaceutical Biotechnology and its Applications | 10:30am-12:00pm |
| Lecture 2           | Dr. RS. Chundawat     | Agricultural Biotechnology and its Applications   | 12:00pm- 1:30pm |
| Lecture 3           | Dr. Bhupendra K Goyal | Plant Biotechnology and its Applications          | 2:30pm-4:00pm   |
| Valedictory Session |                       |                                                   | 4:00-5:00 pm    |



FACULTY DEVELOPMENT PROGRAMME (FDP)  
ON  
Emerging Trends in Biotechnology and Applications to Human  
Welfare  
(September 24-28, 2018)

**List of Participants**

| S. No. | Name                | Address and Contact Details |
|--------|---------------------|-----------------------------|
| 1.     | Dr. Manish Didwania |                             |
| 2.     | Dr. Rishi Kumar     |                             |
| 3.     | Dr. Vinay K Singh   |                             |
| 4.     | Dr. Ashok Rathore   |                             |
| 5.     | Dr. Tathagat Ghosh  |                             |
| 6.     | Dr. Ajay K Singh    |                             |
| 7.     | Dr. Hitesh Jangid   |                             |
| 8.     | Dr. Puneet Gupta    |                             |
| 9.     | Mr. Amit Srivastava |                             |
| 10.    | Dr. Rishi Pandey    |                             |
| 11.    | Dr. KPS Sisodiya    |                             |
| 12.    | Ms. Pankaj Kumari   |                             |
| 13.    | Ms. Nisha Choudhary |                             |
| 14.    | Ms. Anamika Chouhan |                             |
| 15.    | Ms. Anjali          |                             |
| 16.    |                     |                             |
| 17.    |                     |                             |
| 18.    |                     |                             |
| 19.    |                     |                             |
| 20.    |                     |                             |
| 21.    |                     |                             |
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| 25.    |                     |                             |



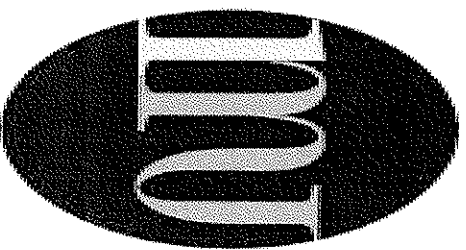
**MODY**  
UNIVERSITY

LAKSHMANGARH • RAJASTHAN

FACULTY DEVELOPMENT PROGRAMME (FDP)

ON  
EMERGING TRENDS IN BIOTECHNOLOGY AND APPLICATIONS TO HUMAN  
WELFARE  
(24<sup>TH</sup>-28<sup>TH</sup> SEPTEMBER, 2018)  
ORGANIZED BY

DEPARTMENT OF BIOSCIENCES, COLLEGE OF ARTS, SCIENCE AND  
HUMANITIES (CASH)  
MODY UNIVERSITY OF SCIENCE AND TECHNOLOGY  
LAKSHMANGARH, SIKAR, RAJASTHAN. 332311



**MODY**  
**UNIVERSITY**  
LAKSHMANGARH • RAJASTHAN

**FACULTY DEVELOPMENT PROGRAMME  
(FDP)**

**ON**

**Emerging Trends in Biotechnology and  
Applications to Human Welfare**

**(September 24-28, 2018)**

**Organized by**

**Department of Biosciences, College of Arts, Science and  
Humanities (CASH)**

**Mody University of Science and Technology  
Lakshmangarh, Sikar, Rajasthan. 332311**



**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Emerging Trends in Biotechnology and Applications to Human Welfare**  
**(September 24-28, 2018)**

**Registration Form**

1. Name : Dr. Jitendra Binwal
2. Designation : Associate Professor
3. Institution : MUST
4. Department : Mathematics
5. Mobile No : 09893920013/08854010021
6. Educational qualification : PhD
7. Email : jitendrabinwal.slas@modyuniversity.ac.in
8. Address for correspondence : MUST

**Declaration**

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinators in case I am unable to attend the course.

Date: 20.09.2018

Signature of the Applicant

For further enquiries please contact:  
navneetjoshi.cash@modyuniversity.ac.in



**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Emerging Trends in Biotechnology and Applications to Human Welfare**  
(September 24-28, 2018)

**Registration Form**

1. Name : Dr. B. R. Singh
2. Designation : Associate Prof.
3. Institution : MUST
4. Department : Physics
5. Mobile No : 9983198078
6. Educational qualification : Ph.D.
7. Email : brajraj.singh.cet@modyuniversity.ac.in
8. Address for correspondence : MUST

**Declaration**

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**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Emerging Trends in Biotechnology and Applications to Human Welfare**  
**(September 24-28, 2018)**

**Registration Form**

1. Name : Dr. Narendra Kumar
2. Designation : Associate Professor
3. Institution : MUST
4. Department : Physics
5. Mobile No : 9588239267
6. Educational qualification : PhD
7. Email : narendra.kumar.slas@modyuniversity.ac.in
8. Address for correspondence : MUST

**Declaration**

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Date: 20.09.18

  
Signature of the Applicant

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**(September 24-28, 2018)**

**Registration Form**

1. Name : Dr. B.S. Rathore
2. Designation : Associate Professor
3. Institution : MUST
4. Department : Commerce
5. Mobile No : 9413043349
6. Educational qualification : PhD
7. Email : bsrathore\_sob@modyuniversity.ac.in
8. Address for correspondence : MUST

**Declaration**

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Date: 20.09.2018

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Signature of the Applicant

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**Emerging Trends in Biotechnology and Applications to Human Welfare**  
**(September 24-28, 2018)**

**Registration Form**

1. Name : Dr. Harish Kumar Dhingra
2. Designation : Asst. Prof.
3. Institution : MUST
4. Department : Biocciences
5. Mobile No : 7988476239
6. Educational qualification : PhD
7. Email : harish.dhingra.slas@modyuniversity.ac.in
8. Address for correspondence : MUST

**Declaration**

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Date: 20.09.2018

Signature of the Applicant

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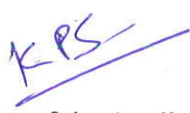
**Registration Form**

1. Name : Dr. K. P. Sharma
2. Designation : Asst. Professor
3. Institution : SLAS - MUST
4. Department : Bi Sciences
5. Mobile No : 9829659294
6. Educational qualification : PhD
7. Email : Kpsharma.slas@modyuniversity.ac.in
8. Address for correspondence : MUST

**Declaration**

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Date: 20.09.18

  
Signature of the Applicant

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**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
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**Emerging Trends in Biotechnology and Applications to Human Welfare**  
**(September 24-28, 2018)**

**Registration Form**

1. Name : Dr. Manish Didwania
2. Designation : Associate Professor
3. Institution : MVST
4. Department : Commerce
5. Mobile No : 820 9688221
6. Educational qualification : manishdidwania.sob@modyuniversity.ac.in
7. Email : Ph.D
8. Address for correspondence : MVST

**Declaration**

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinators in case I am unable to attend the course.

Date: 29.08.2018

Signature of the Applicant

For further enquiries please contact:  
navneetjoshi.cash@modyuniversity.ac.in



**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Emerging Trends in Biotechnology and Applications to Human Welfare**  
**(September 24-28, 2018)**

**Registration Form**

1. Name : Poojima Jaiswal
2. Designation : Research Scholar
3. Institution : MUST
4. Department : Bi Sciences
5. Mobile No : 9910535145
6. Educational qualification : MS
7. Email : Posaraswilas@modyuniversity.ac.in
8. Address for correspondence : MUST

**Declaration**

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Date: 20.09.18

Signature of the Applicant

For further enquiries please contact:  
navneetjoshi.cash@modyuniversity.ac.in



**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Emerging Trends in Biotechnology and Applications to Human Welfare**  
**(September 24-28, 2018)**

**Registration Form**

1. Name : Mr. Rakish Kr Verma
2. Designation : Asst. Research scholar
3. Institution : MVST
4. Department : Bt sciences
5. Mobile No : 9783864011
6. Educational qualification : PHD
7. Email : rkverma.cash@modyuniversity.ac.in
8. Address for correspondence : MVST

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Date: 20/09/18

Rakish

Signature of the Applicant

For further enquiries please contact:  
navneetjoshi.cash@modyuniversity.ac.in



**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
**ON**  
**Emerging Trends in Biotechnology and Applications to Human Welfare**  
**(September 24-28, 2018)**

**Registration Form**

1. Name : Dr. R. S. Chaudhary
2. Designation : Asst. Professor
3. Institution : MUST
4. Department : Bio sciences
5. Mobile No : 9829982192
6. Educational qualification : Ph.D
7. Email : r.schaudhary.slas@modyuniversity.ac.in
8. Address for correspondence : MUST

**Declaration**

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Date: 20.08.18

Signature of the Applicant

For further enquiries please contact:  
navneetjoshi.cash@modyuniversity.ac.in



**FACULTY DEVELOPMENT PROGRAMME (FDP)**  
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**Emerging Trends in Biotechnology and Applications to Human Welfare**  
**(September 24-28, 2018)**

**Registration Form**

1. Name : Ms. Shellina Khan
2. Designation : Research Scholar
3. Institution : MUST
4. Department : Biosciences
5. Mobile No : 9694258422
6. Educational qualification : Msc.
7. Email : 25.ShellinaKhan@gmail.com
8. Address for correspondence : MUST

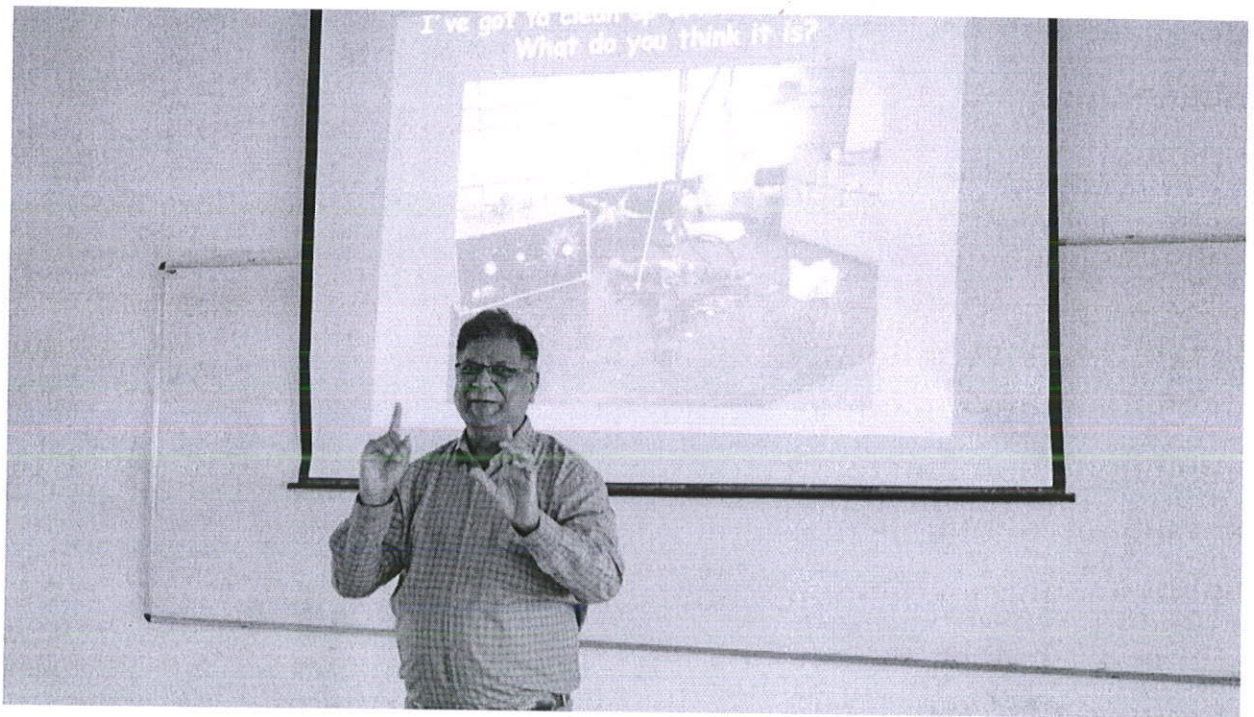
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Date: 20.09.2018

  
Signature of the Applicant

For further enquiries please contact:  
navneetjoshi.cash@modyuniversity.ac.in



FDP-2018  
/ *[Signature]*

## Discussion on FDP

### **Emerging Trends in Biotechnology and Applications to Human Welfare**

(September 24-28, 2018)

Biotechnological advancements continue to make major strides and are rapidly expanding due to its importance in the development of therapies for human welfare and technological advancement. Biotechnology is an applied subject, in which there is an inherent heterogeneity owing to the multifaceted causes and origin of different techniques.

The molecular biology and the other techniques vary vastly from one application to another. Hence the faculty needs to update and reorient themselves to meet the rapidly changing professional and scientific needs of the stakeholders. This workshop focuses on teaching several basic concepts of the advanced biology. In addition to the theoretical concepts, different analytical techniques that are useful in the bioprocess and drug development will also be discussed.



## Outcome of the FDP

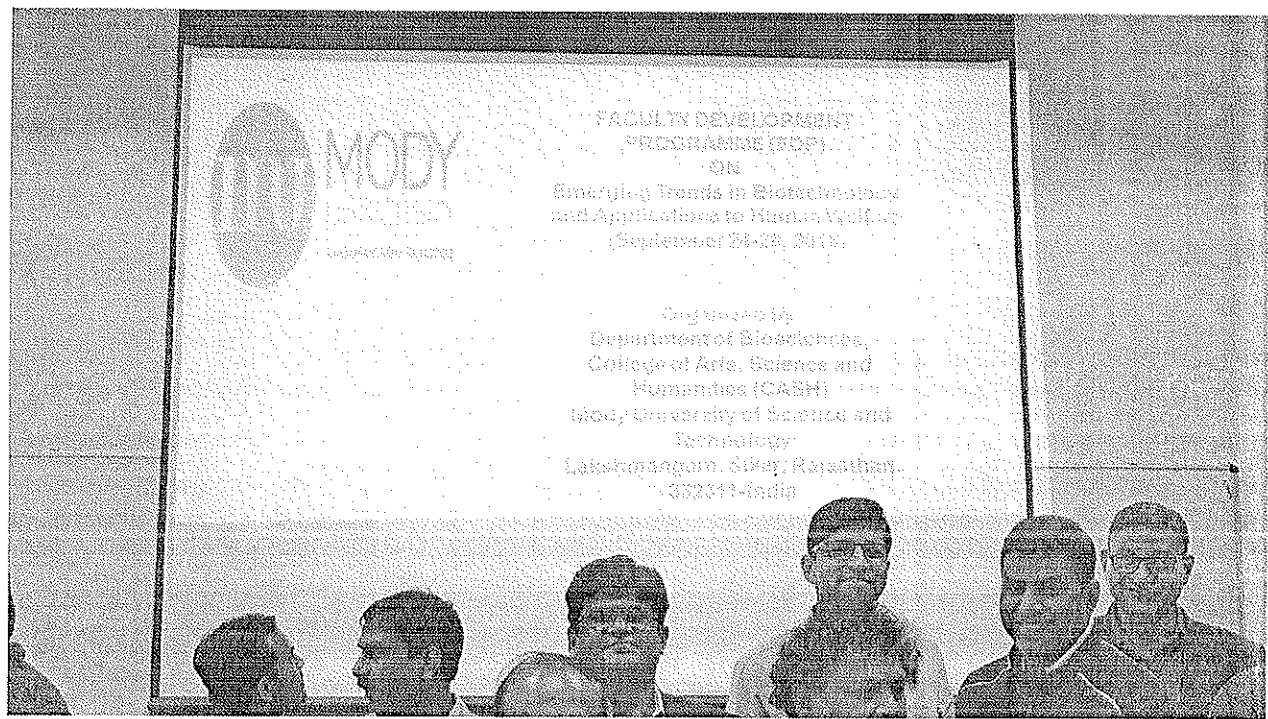
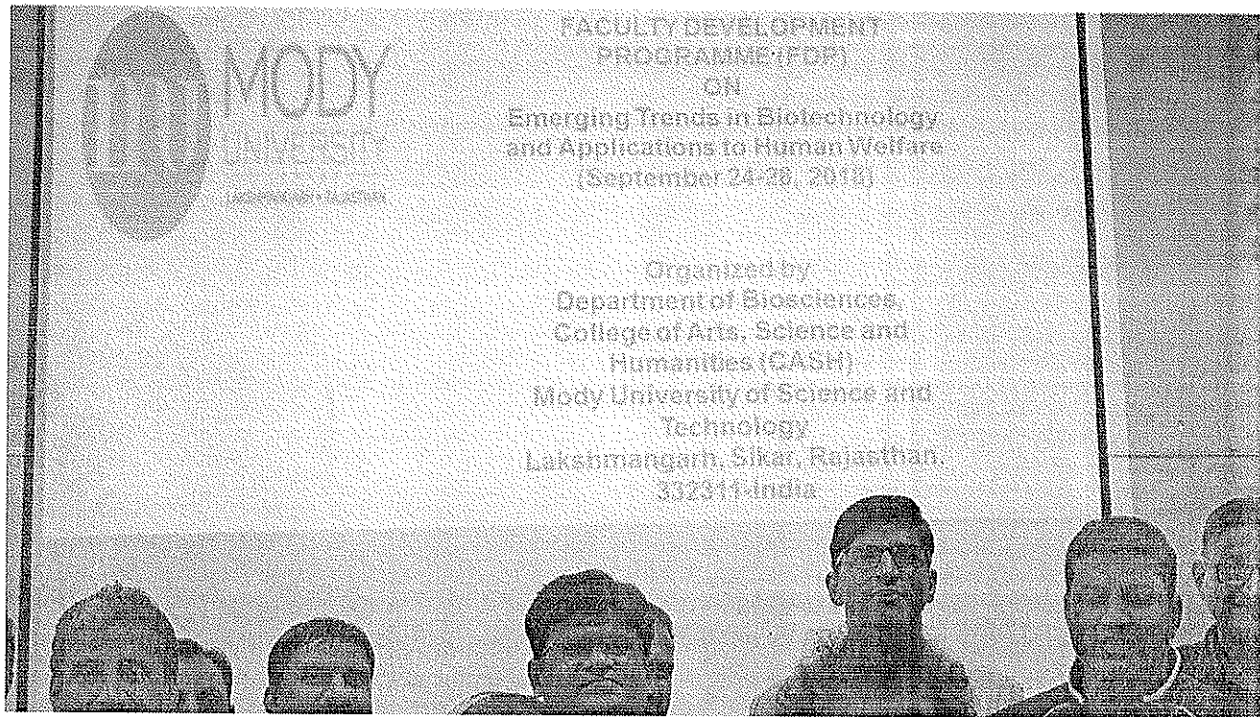
### **Emerging Trends in Biotechnology and Applications to Human Welfare**

(September 24-28, 2018)

The FDPs have **brought increased self-efficiency and teaching competency among** those who were trained. FDPs also brought tangible professionalization of postgraduate medical education and Faculty Members. The challenges are the lack of proper training to sustain the gains made through the past FDPs.

1. After attending FDP, participants will get in depth understanding of research and its implications in decision making process.
2. Gain better understanding on how to design a valid research project to answer specific research questions.
3. Design reliable and valid questionnaires for collection of data.
4. Use descriptive and predictive statistical tools using robust analytical techniques and their applications to human welfare.
5. To make the participants familiar with univariate, bivariate and multivariate biological Techniques.





92/10/18

## Certificate

This is to certify that Dr./Prof. \_\_\_\_\_ has participated in Emerging Trends in Biotechnology and Applications to Human Welfare: One Week Faculty Development Program (24<sup>th</sup> to 28<sup>th</sup> September 2018) organized by Department of Biosciences, School of Liberal Arts and Sciences, Mody University of Science and Technology, Lakshmangarh, Rajasthan.

Prof. (Dr.) Atul Kumar  
(Convenor)

Dr. Navneet Joshi  
(Coordinator)

28<sup>th</sup> Sept 2018