

## A Short Report of 5<sup>th</sup> International Conference on Recent Advances in Science (ICRAS-2021) in Online Mode

<b>Date/Day of program</b>	April 30 and May 1, 2021 (Friday & Saturday)
<b>Organizing Committee</b>	Dr. Satendra Singh (Convener) Dr. Ashutosh Pradhan (Co-Convener) Dr. Sandeepan Maity (Organizing Secretary) Dr. Sanjeev Kumar Jain (Organizing Secretary)
<b>Chief Guest</b>	Dr. S. V. Shukla, Director Fragrance & Flavour Development Center Ministry Of MSME- Government Of India, Kannauj.
<b>Keynote Speaker</b>	Professor. S. Sundar, Department of Mathematics, Indian Institute of Technology Madras (IIT Madras) Chennai 600 036, India.
<b>Invited Speakers</b>	Prof. M Singh (National University of Lesotho, South Africa) Prof. K N Tiwari (Banaras Hindu University, Varanasi) Prof. Devesh kumar ( Babasaheb Bhimrao Ambedkar University, Lucknow) Prof Sudhir Kumar Srivastava (D D U Gorakhpur University, Gorakhpur) Dr. Subrata Chattopadhyay ( IIT Patna) Dr. Neeraj Chaubey (University of Iowa, Iowa City, USA)
<b>No. of Participants</b>	209
<b>Mode of Presentation</b>	Plenary Talk/InvitedTalk/ Oral/ Poster through Webex

### ICRAS-2021 (April 30 and May 1, 2021)

#### In Online Mode

The ICRAS-2021 was scheduled to be commenced on 30<sup>th</sup> April, 2021. The conference was intended to cover a wide range of subthemes in distinct branches of Science, viz., Life Science, Physical Science, Chemical Science and Mathematical Science.

The conference witnessed the active participation of about more than 200 participants from different Institutes/Universities of country in addition to many internal students.

The inaugural ceremony of the conference was started from 9:30 AM on 30<sup>th</sup> April, 2021 in which the Chief Guest was Dr. S. V. Shukla, Director FFDC, Kannauj and Professor. S. Sundar, IIT

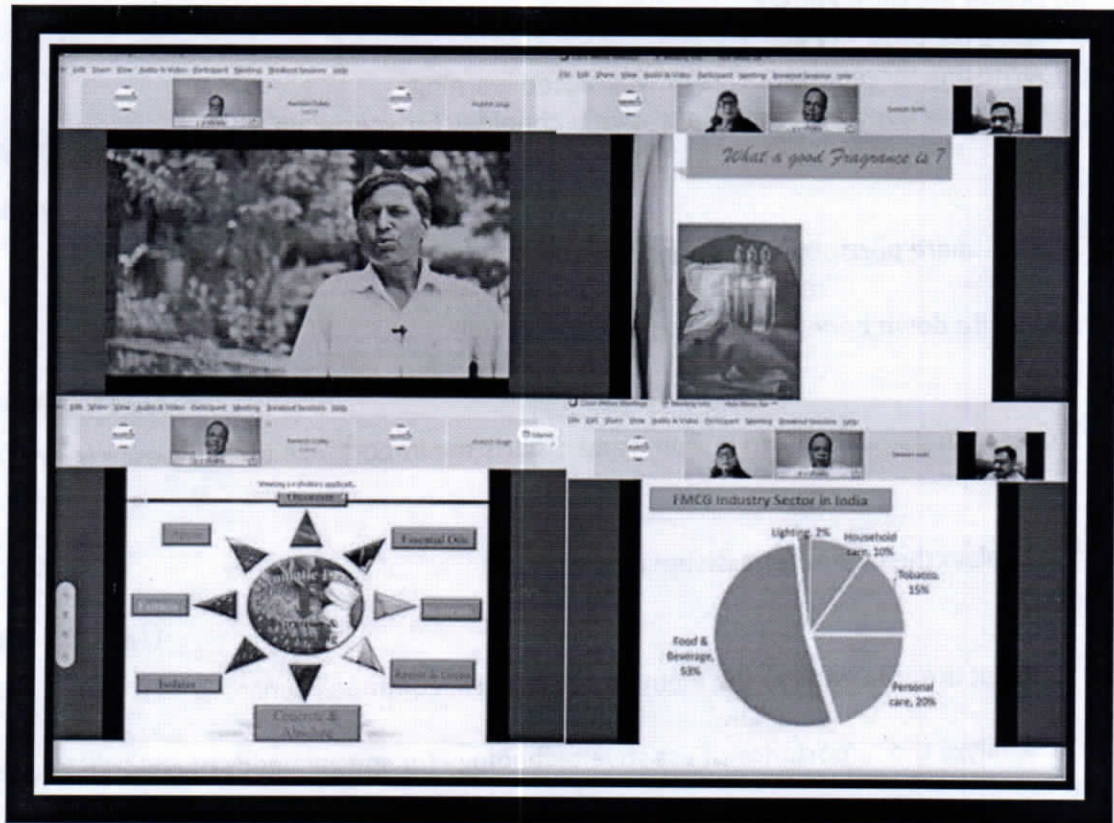
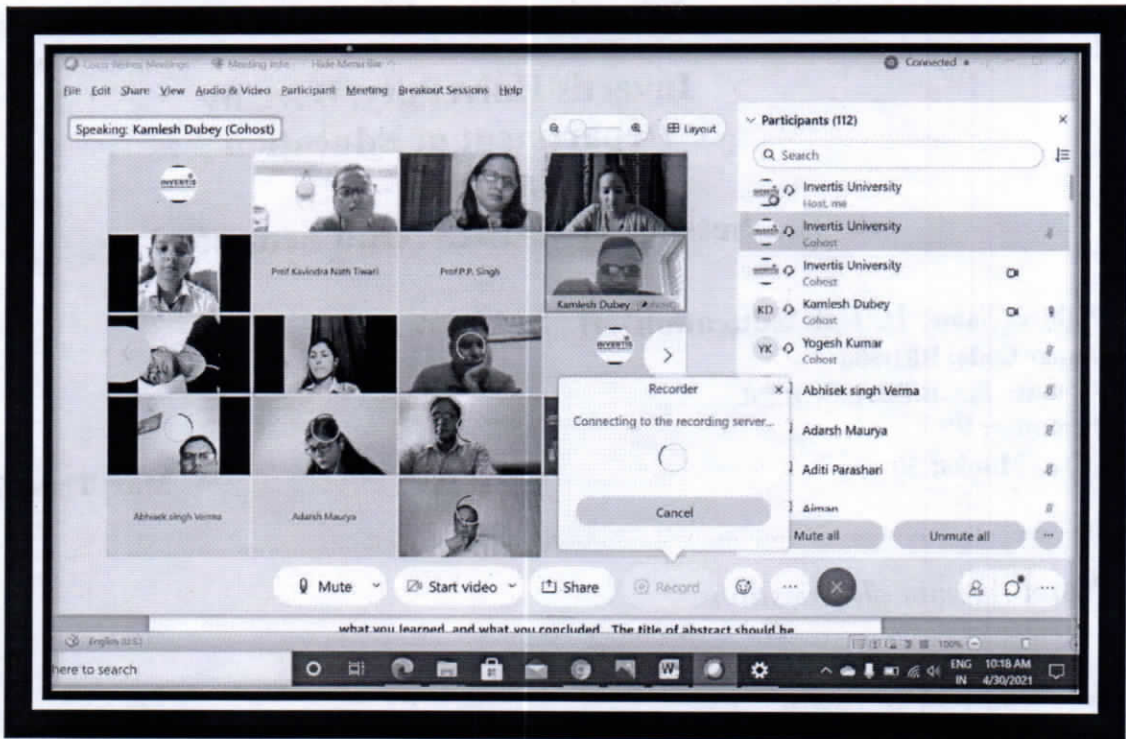
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Madras was keynote speaker. After Inaugural ceremony the talks were delivered by both the eminent personalities which were thoroughly enjoyed by and participants. In his talk Dr. Shukla explained how his institute is helping people to setup their startups and business models in the field of medicinal and natural fragrances while the key note speaker Prof. Sunder highlighted how the different mathematical models can be utilized in making strategies to save people at crowded places during any mishappenings as well as at the time of any natural disaster. The conference is then followed by technical sessions of different streams.

On second day of the conference, technical sessions and poster presentations on different topics of different subjects were held. The conference ended with a valedictory session i.e. compilation of all two days' activities and distribution of prizes to the deserving participants. The conference was then officially called off with vote of thanks.

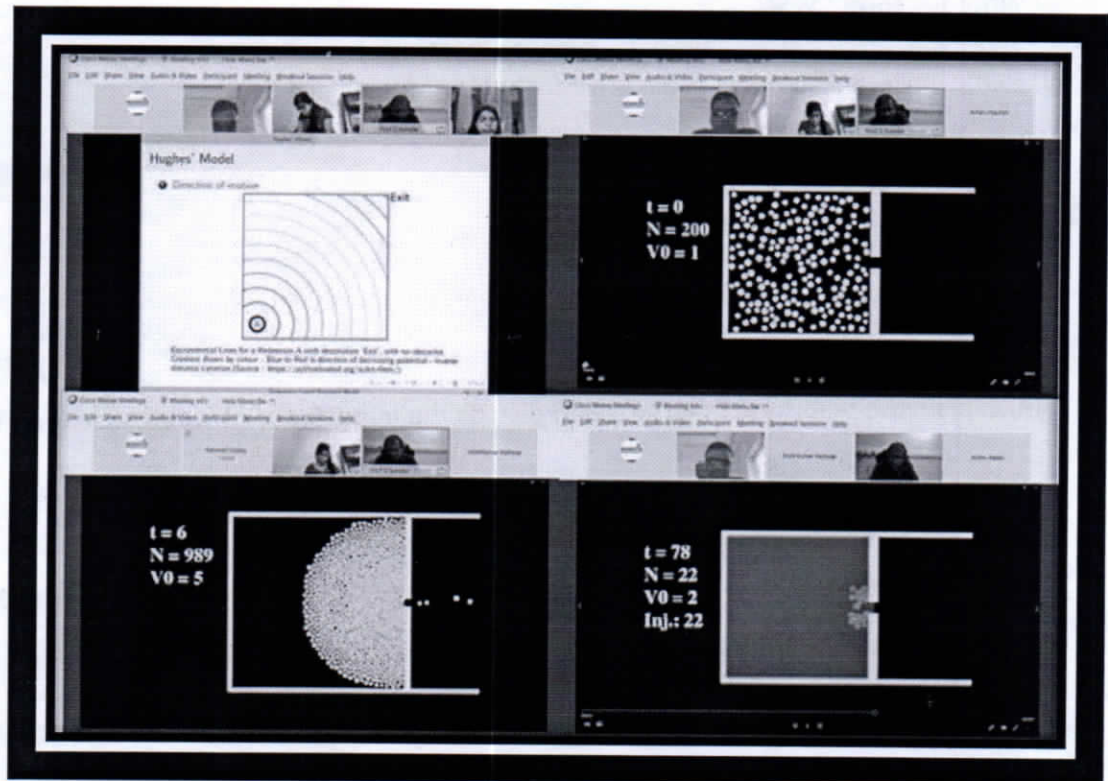
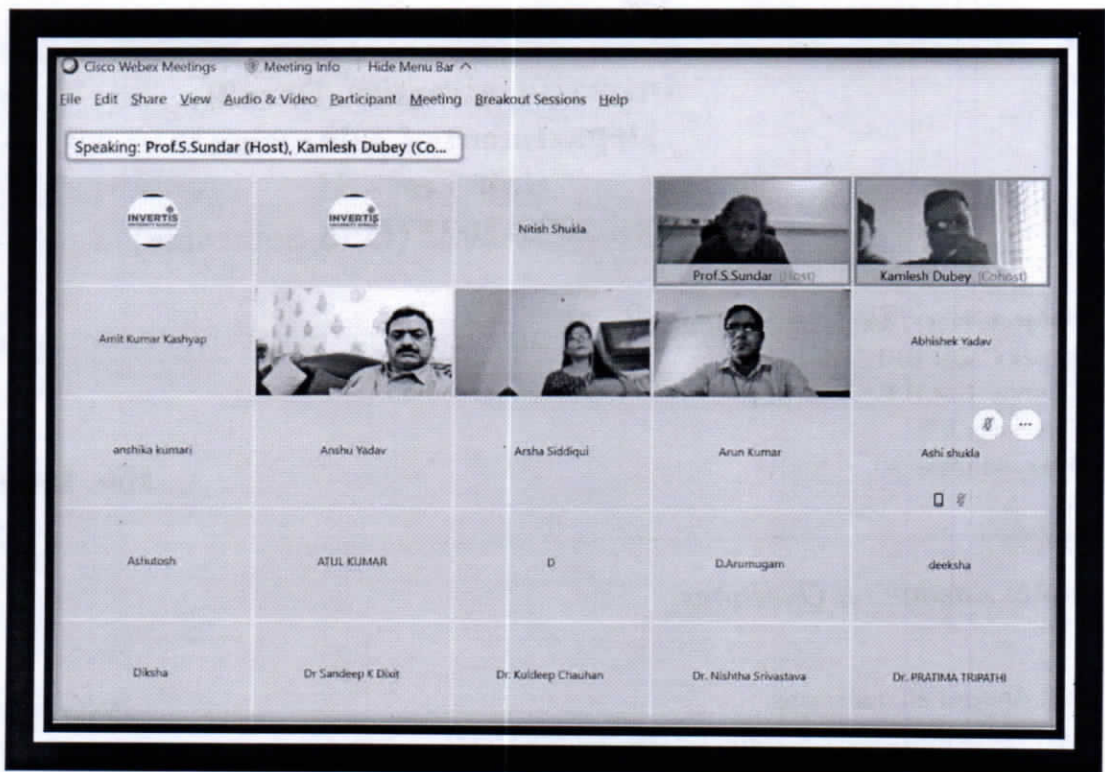
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Glimpses of ICRA *Sanjiv* 2021

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Glimpses of ICRAS-2021

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**One week online FDP on Applicability of Mathematical Sciences in  
Emerging World, by Deptt of Applied Sciences & Humanities, Invertis  
University, Bareilly**

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The first session of second day was started at 10:00 a.m. by Prof. Banktेशwar Tiwari from Banaras Hindu University, Varanasi delivered his talk on “**Modern view point of geometry around us**”. He discussed and explained various geometrical concepts as spherical geometry, hyperbolic geometry and different model of geometry. He also explained concepts of Gaussian curvature. The lecture was very informative with interactive question and answer session. The session was hosted by Dr. Ruchi Mishra.

The afternoon session on day 2 was on “**Two Body Problem and Modeling Challenges**” at 2:pm . The speaker for the session was **Prof C K Mishra, Deptt of Physics, IIT Madras**. He was awarded special breakthrough prize in Fundamental Physics in 2016 for his work.

Prof Mishra has discussed the great challenges that lay ahead the scientists in even establishing what is a gravitational wave and the existence of Black Holes predicted by Albert Einstein about a century ago.

There was a very enthusiastic response from the participants who were motivated and fascinated by the details and the presentation of the lecture. In the end Prof Mishra responded to the questions from the participants and also said that this is a rising field of research and great activity will continue in the next at least 30 years and anyone opting for this field will have great challenges and also a very great future.

The session was chaired by Dr S K Jain and the host for FDP was Prof K K Dubey both from Invertis University.

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Recording... LIVE on Facebook

Dr. K.B. Pandey

Participants (170)

Curvature of a regular Surface at a point

The Gaussian curvature at a point is regarded as curvature of a regular Surface at that point.




Figure: Surfaces of constant curvature

Participants list (partial):

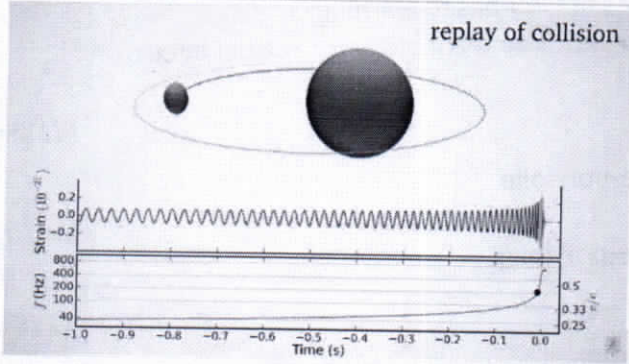
- Sawan Kumar
- seema jangir
- Sekhar Maithy
- Shahk Ahmad
- Shashank Upadhyay
- Shivendra Singh
- Shivan Gupta
- Shiv Krishna Teli
- Souam BAdar
- Srinivasa Narayana
- Suchita Jain
- Sushir Kumar Dubey
- Surbhi
- Surya Pratap Goutam
- Swagata Kundu
- Swati Mishra

TARUN KUMAR...

Participants (144)

Visualization of a relatively simple binary black hole coalescence (one consistent with GW151226)

replay of collision



Nonprecessing binary with mass ratio  $\sim 3.3$  and spins of  $-0.5$  and  $-0.4$  (one aligned and one antialigned); YouTube link

Chat

FDP /ASH /IU20/ 508  
DR MUKESH CHANDRA

From 67 periods to Everyone:  
357 Dr.Syeda Rashmeeda parveen

From Gagan Prakash to Everyone:  
Dr Gagan Prakash  
IU20/155

From Dr ANAND Rai to Everyone:  
FDP/ASH/IU20/022

From Bisma Jandari to Everyone:  
Bisma Jandari

To: targets in (11/14)

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Recording... LIVE

Participants (146)

Deepthi TARUN KUMAR...

# Matched filtering

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Mass 2 [ $M_{\odot}$ ]

Mass 1 [ $M_{\odot}$ ]

250,000 waveforms

Legend:

- | $\chi_{1,2}$ | < 0.05
- | $\chi_1$ | < 0.9895, | $\chi_2$ | < 0.05
- | $\chi_{1,2}$ | < 0.9895

LIGO-Virgo Collaboration, PRD 96, 122003 (2016)

18

Chat

FDP/ASH/1/20/508  
DR MUKESH CHANDRA

From Dr. Syeda Parveen to Everyone: 02:23 PM  
357 Dr. Syeda fasheda parveen

From Saba Parveen to Everyone: 02:24 PM  
Dr. Gozala Parveen  
UN20/155

From Dr. ANAND Bhatt to Everyone: 02:24 PM  
FDP/ASH/1/20/022

From Sema boudala to Everyone: 02:25 PM

To: sanjitha (Private)

Type message here...

*Sanjitha*

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# INVERTIS UNIVERSITY BAREILLY

One Week Online Faculty Development Programme  
on

“Applicability of Mathematical Sciences in Emerging World”

Organised By

Department of Applied Science & Humanities, Invertis University, Bareilly

in Association with



The National Academy of Sciences



International Academy of Physical Sciences



Mathematical Sciences Institute

28<sup>th</sup> July to 02<sup>nd</sup> August-2020



Patron

**Dr. Umesh Gautam**

Chancellor, Invertis University, Bareilly



**Prof. YDS Arya**  
Vice-Chancellor  
Invertis University, Bareilly



**Prof. P.P. Singh**  
Dean, Faculty of Science  
Invertis University, Bareilly, India



**Dr. Kamlesh Kr. Dubey**  
Head Dept. of Applied Science & Humanities  
Invertis University, Bareilly, India  
Convener



**Dr. Jitesh Pati Tripathi**  
Department of Mathematics, I.N.College, Halpur  
B.R.A. Bihar University  
Organising Secretary

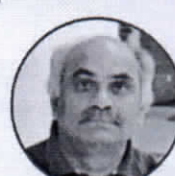
## Eminent Speakers



**Prof. Satya Deo Tripathi**  
General Secretary- NASI  
General Secretary- Indian Mathematical Society



**Prof. P.N. Pandey**  
Ex. V.C. NGB University, Prayagraaj  
General Secretary- IAPS



**Prof. T. Venkatesh**  
Director, Mathematical Sciences  
Institute, Belgaum, Karnataka



**Prof. S.k. Narasimha Murthy**  
Chairman, Department of P.G. SRM,  
Kuvempu University, Karnataka



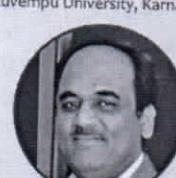
**Prof. A. Muhammed Uludag**  
Galatasaray University, Istanbul, Turkey



**Prof. Banktेशwar Tiwari**  
Institute of Science, BHU, Varanasi



**Prof. Gyaneshwer Chaubey**  
Faculty of Sciences, BHU, Varanasi



**Prof. K.K. Agarwal**  
Delhi University



**Dr. P.D. Mishra**  
ISRO Bangalore



**Dr. Jitendra Singh**  
VSK University, Bellary



**Dr. A.K. Verma**  
IIT, Patna



**Dr. Abhishek Saxena**  
Novosibirsk State University, Russia



**Dr. C.K. Mishra**  
IIT Chennai

**Contact:** Dr. K.K. Dubey 9415267202 | Dr. J.P. Tripathi 9453477657 | **email:** [ashevents@invertis.org](mailto:ashevents@invertis.org)

Note: No Registration Fee | Audience: Faculty members | E-certificate- After successful completion of the event and daily feedback form submission.

Registration link of google form: <https://forms.gle/WGH6nJKwrkS7UY186>

Campus: Invertis Village, NH-24, Lucknow-Bareilly Highway, Bareilly-243123 (U.P)

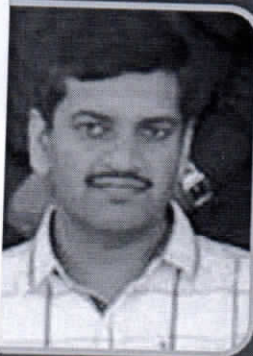
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Established by Govt. of U.P. in 1984. Affiliated to U.P. State Univ. of 2012

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**One-Week Online Faculty Development Programme**  
"Applicability of Mathematical Sciences in Emerging World"

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**Prof. Banktesh Tiwari**  
BHU, Varanasi

"Modern veiw point of  
geometry around us"

Topic

"Two body problem and  
modelling challenges"

Organised By

Department of Applied Science & Humanities



**Dr. C. K. Mishra**  
IIT Chennai

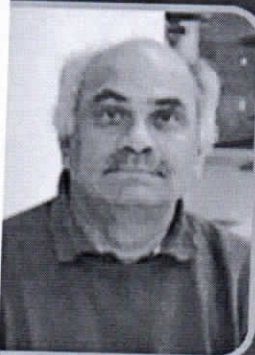
Time: 10:00AM-11:00AM

Date: 29 July, 2020

Time: 02:00PM-03:00PM

**One-Week Online Faculty Development Programme**  
"Applicability of Mathematical Sciences in Emerging World"

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**Prof. T. Venkatesh**  
Director, MSI, Karnataka

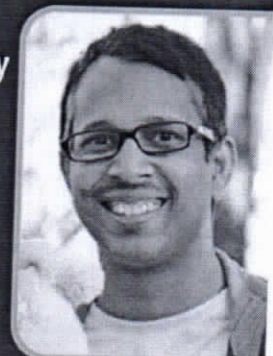
"What are the applications of  
Mathematics?. What are!"

Topic

"How mathematical modellings  
are shaping the studies  
on human evolution?"

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**Prof. Gyaneshwar Chaubey**  
BHU, Varanasi

Time: 10:00AM-11:00AM

Date: 30 July, 2020

Time: 02:00PM-03:00PM

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**One-Week Online Faculty Development Programme**  
"Applicability of Mathematical Sciences in Emerging World"



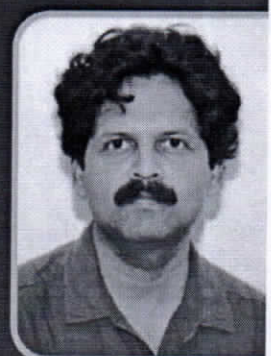
**Dr. P.D. Mishra**  
Scientist  
ISRO, Bangalore

"Mathematical Sciences  
Application in Space Field"

**Topic**

**Dr. A.K. Verma**  
IIT  
Patna

"The Mathematical modeling  
using Mathematica"



Organised By

Department of Applied Science & Humanities

Time: 10:00AM-11:00AM

Date: 31 July, 2020

Time: 02:00PM-03:00PM

**One-Week Online Faculty Development Programme**  
"Applicability of Mathematical Sciences in Emerging World"



**Dr. Jitendra Singh**  
VSK University, Bellary

"Fundamentals of Magnetohydrodynamics  
and Applications"

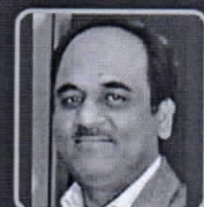
Time: 10:00AM-11:00AM



**Dr. Abhishek Saxena**

Novosibirsk State University, Russia  
"Mathematics of Blockchain and Blockchain  
Application to the future world"

Time: 12:05PM-01:00PM



**Prof. K.K. Agrawal**  
Delhi University

"Exploratory Data Analysis"

Time: 02:00PM-03:00PM

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Department of Applied Science & Humanities

Date: 01 August, 2020

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**One-Week Online Faculty Development Programme**  
 "Applicability of Mathematical Sciences in Emerging World"



**Prof. S.K. Narishimha Murthy**  
 Kevepu University  
 Karnataka

**Prof. P.N. Pandey**  
 Ex-VC NGB University  
 Prayagraj



**Topic**

"Mathematical applications for  
 Covid-19 global pandemic"

"Mathematics Around You"

**Organised By**

**Department of Applied Science & Humanities**

Time: 10:00AM-11:00AM

Date: 02 August, 2020

Time: 02:00PM-03:00PM

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**One-Week Faculty Development Programme**

**Certificate of Participation**

This is to certify that Prof./Dr./Mr./Ms. \_\_\_\_\_ from  
 Department of \_\_\_\_\_  
 College/University \_\_\_\_\_  
 Reg. No. \_\_\_\_\_ has successfully completed **One-Week Online Faculty Development Programme** on "**Applicability of Mathematical Sciences in Emerging World**" organized by **Department of Applied Science & Humanities, Faculty of Science, Invertis University, Bareilly (U.P.)** in association with "**The National Academy of Sciences**"; "**International Academy of Physical Sciences**" and "**Mathematical Sciences Institute**" from **28<sup>th</sup> July to 02<sup>nd</sup> August, 2020.**

**Prof. P.P. Singh**  
Dean, Faculty of Science

**Prof. S.D. Tripathi**  
The General Secretary-NAIS

**Prof. P.N. Pandey**  
The General Secretary-IAPS

**Prof. T. Venkatesh**  
Director-MSI

**Dr. K.K. Dubey**  
Convener  
 Head, Department of Applied  
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Campus: Invertis Village, NH-24, Bareilly, UP.-243123 Phone: (0581) 3390000, 2460442 / 2460443

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**Department of Computer Science and Engineering**  
**FDP Reports**  
**Session- 2019-20**

*[Signature]*  
 (Dr. Gaurav Agarwal)

HoD CSE Head  
 Department of Computer Science,  
 & Engineering  
 Invertis University,  
 Bareilly-243123, UP

*[Signature]*  
 (Prof. Rajesh Kumar Shukla)

Dean Engineering & Technology

*[Signature]*

(Mr. Santosh Kumar)  
 (Registrar)

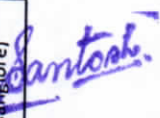
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**List of Guest Lectures Organised**

DEPARTMENT NAME : Computer Science Engineering

S.no	Date of Guest Lecture	National/ International (Place)	Alumni Guest Speaker (Y/N)	CATEGORY (INDUSTRY/ ACADEMICS)	Name of the Resource person	Designation	Organisation Name	Topic	Email Id	Contact Number
1	Apr/16, 2020	National (Noida)	No	Industry	Mr. Anand Kumar	Sr. Data Analyst	Moring Global	Data Science	anandpandey04@live.com	9759253330
2	Apr 16-18, 2020	National (Noida)	No	Industry	Mr. A.K. Pathak	Scientist	NIC, India	Data Analytics		9811327766
3	Apr/22, 2020	International (United Kingdom)	No	Industry	Mr. Saurabh Agarwal	Managing Consultant	(Wipro), United Kingdom	Artificial Intelligence and Machine learning		447866981011
4	Apr/29, 2020	National (Roorkee)	No	Academics	Mr. Amit Kumar Sharma	Project Associates	IIT, Roorkee	Virtual Lab through online mode		
5	Apr/29, 2020	National (Roorkee)	No	Academics	Mr. Chetan Dhiman	Project Associates	IIT, Roorkee	Virtual Lab through online mode	chetan.dhiman.27@gmail.com	8439100005
6	May/03, 2020	National (Dehradun)	No	Industry	Mr. Gaurav Mishra	Founder and Head Coach	Online academy for personal growth and professional development	Career Success Post covid-19		
7	May/12, 2020	International (Germany)	No	Industry	Mr. Rajnish Kumar	Sr.Salesforce Technical Architect	HCL, Germany	Reconcile of Campus life to Corporate life	rajnishkumar21@gmail.com	491626082001
8	May/14, 2020	National (Delhi)	No	Industry	Ms. Sanya Handa	Learning and Development Consultant		Interview Skills		
9	May/16, 2020	National (Bangalore)	Yes	Industry	Mr. Samuel David	Sr. Software Engineer and Team Lead	IBM, Bangalore	A journey of software engineer	k.samueldavid02@gmail.com	8065206201

  
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292  
105  
104



DEPARTMENT NAME : Computer Science Engineering  
 List of Guest Lectures Organised

S.no	Date of Guest Lecture	National/ International (Place)	Alumni Guest Speaker (Y/N)	CATEGORY (INDUSTRY/ ACADEMICS)	Name of the Resource person	Designation	Organisation Name	Topic	Email Id	Contact Number
10	May/21, 2020	National (Haridwar)	No	Academics	Dr. Krishan Kumar	Assistant Professor	Gurukul Kangri Vishwavidyalaya, Haridwar(U.K.)	Covid-19 Impacts: Challenges and opportunity for IT Industry	krishankumar1614@gmail.com	9319777952
11	May/21, 2020	National (Hyderabad)	Yes	Industry	Mr. Shriom Tiwari	Software Engineer	Qualcomm Technology, Hyderabad	Database Functional dependency	tiwarishriom@gmail.com	9568858197
12	May/23, 2020	National (Noida)	Yes	Industry	Ms. Shweta Tiwari	Digital Marketing cum UI Designer	Good Life Technology, Noida	Scope of Digital Marketing	snazzy.shweta287@gmail.com	9758499113
13	May/23, 2020	National (Noida)	Yes	Industry	Mr. Piyush Saxena	Lead-QA	Exzeo Software Pvt. Ltd. Noida	Where to go? (A session to help fresh guns to shoot market with precision)		9711179894
14	May/23, 2020	National (Chandigarh)	Yes	Industry	Mr. Anuj Saxena	Data Analyst	Infosys, Chandigarh	Buisness Intelligence: An overview and data visualization	iamanuj.saxena@yahoo.com	9457274010
15	May/27, 2020	International (Saudi Arabia)	No	Industry	Mr. Kamil raza Khan	Application Support Consultant	Arab National Bank, Riyadh, KSA	Oracle PL/Sql Concepts	kamilsaya@gmail.com	9711311330

Note: A small write up not more than 50 words by the resource person and his photograph must be send to CRC for social media promotion.

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# Report On One week online Faculty Development Programme On Intelligent Systems

Organized by:  
Department of Computer Science and Engineering  
Invertis University, Bareilly



One Week Faculty Development Program  
On  
**INTELLIGENT SYSTEMS**  
29TH JUNE - 4TH JULY



**Patron**  
Dr. Umesh Gauram  
Chairman, Invertis University

**Speakers  
Academics**

**Advisory Board**

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Faculty of Engineering  
Invertis University

**Prof. R.K. Shukla**  
Department of Computer Science  
Invertis University

**Dr. Jitendra Nath Srivastava**  
Chief Professor of Computer Science  
Invertis University

**Dr. Gourav Agarwal**  
Assistant Professor  
Invertis University

**Convener**  
Nishant J. Verma  
Assistant Professor  
Invertis University

**Prof. Mohamamad Saadoun Usman**  
Professor in Computer Science  
Algeria Marine University

**Dr. Manu Pratap Singh**  
Professor  
Invertis University, Egypt

**Dr. Divya Kaur**  
Assistant Professor  
Invertis University

**Dr. V. K. Prasad**  
Assistant Professor  
Invertis University

**Arunoj Ojha**  
Assistant Professor  
Invertis University

**Vidya Gupta**  
Assistant Professor  
Invertis University

**Dr. Anshu Pathak**  
Assistant Professor  
Invertis University

**Smit Jais**  
Assistant Professor  
Invertis University

**Industry**

**International  
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Chairman  
Invertis University

**Dr. Ravi Shankar Shukla**  
Chairman  
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**Saurabh Agarwal**  
Assistant Professor  
Invertis University

**Rajmeha Kumar**  
Assistant Professor  
Invertis University

Registration Link :- <https://bit.ly/3g26f1wr>  
Organized by  
Department of Computer Science and Engineering  
Invertis University, Bareilly

**Co-Conveners**

**Rhimona Gupta**  
Assistant Professor  
Invertis University

**Anshu Pathak**  
Assistant Professor  
Invertis University

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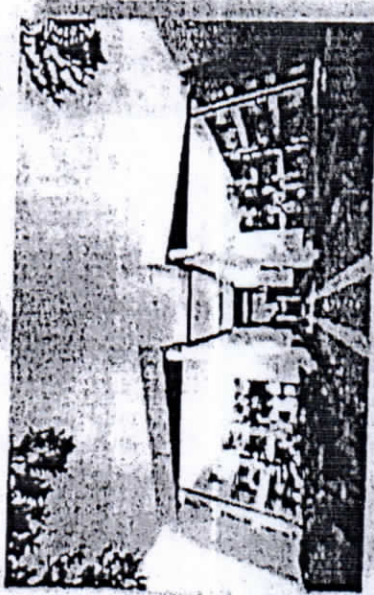


# One Week Online Faculty Development Programme

ON

## "INTELLIGENT SYSTEMS"

### 29<sup>th</sup> June - 4<sup>th</sup> July, 2020



Organized by  
Department of Computer  
Science And Engineering

  
**INVERTIS**  
UNIVERSITY BAREILLY

#### Resource Persons:

- Dr. V. K. Panchal**  
Former Director, DRDO Delhi
- Prof. Mohammad Sarosh Umar**  
Professor & Chairman, Department of CSE, AMU
- Mr. Anoop Ojha**  
Sr Software Manager, Amdocs Inc.  
Dallas, Texas, USA
- Prof. Manu Pratap Singh**  
Professor, Dr. B. R. Ambedkar University, Agra
- Dr. Ajay Indian**  
Assistant Professor  
Central University of Rajasthan, Ajmer
- Dr. Sandhya Tarar**  
Assistant Professor  
Gautam Buddha University, Noida
- Dr. Divya Kumar**  
Assistant Professor, MINNIT, Allahabad
- Dr. Mohit Kumar**  
Assistant Professor, NIT, Jalandhar
- Prof. Brijesh K. Gupta**  
Ex-ITian, Director  
Braanet Technologies Pvt. Ltd., Ghaziabad
- Mr. Vidyut Gupta**  
Head of Core-Technology India Middle East Africa  
Nokia Networks
- Dr. Christos Sarakasidis**  
Data Scientist, Cover Insurance, UK *Contact*
- Mr. Alok Pathak**  
Scientist, NIC, Delhi
- Mr. Sumit Jain**  
Monitoring Integration Engineer,  
Williamhill (bookmaker)  
Leeds, West Yorkshire, UK
- Registrar**  
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#### Patron

**Dr. Umesh Gautam**  
Chancellor, Invertis University, Bareilly

#### Advisory Committee:

**Prof. YDS Arya**  
Vice-Chancellor, Invertis University, Bareilly

#### Prof. R.K. Shukla

Dean Engineering, Invertis University, Bareilly

#### Dr. Gaurav Agarwal

HOD, Dept. of CSE, Invertis University, Bareilly

#### Convener

**Mr. Suhail J. Quraishi**

CEO, I-Tech, Assistant Professor, Invertis Univ

#### Co-Convenors

**Ms. Shimona Gupta**

Assistant Professor, Invertis University

**Mr. Ashish Saxena**

Assistant Professor, Invertis University

#### Organizing Committee

**Mr. Rahul Rastogi**

**Mrs. Meeta Chaudhary**

**Dr. Chandan Kumar**

**Dr. Akash Sanghi**

**Mr. Anil Pandey**

**Mrs. Sakshi Tripathi**

**Mr. Ankit Saxena**

#### Registration Link:

<https://bit.ly/3g26HwR>

Last date for Registration: 28<sup>th</sup> June, 2020

Note: Certificate will be provided to those who attend the 70% faculty development prog

Contact No: 9148720923 82799252

E-Mail Id: Cse fdp20@gmail.com



Session number: 1  
 Date: 29th June 2020  
 Time: 11:30 AM onwards  
 Speaker: Dr. V.K Panchal  
 Organization: Former Director, DRDO Delhi  
 No. of participants: 163  
 Topic: Artificial intelligence based Operational Systems Development & Deployment

**Key Points:**

1. Explained how Artificial Intelligence has the ability of a digital computer to perform task commonly associated with intelligent beings.
2. How the artificial intelligence allows the machine the ability to learn, reason.
3. Discussed the concept of cognition, ambiguity, optimization, imprecision, uncertainty etc.
4. Discussed the concept of FANET's (Flying Adhoc Networks).
5. Explained about big data, sky computing, social networks and conceptual networks.

One Week Faculty Development Program  
 On  
**INTELLIGENT SYSTEMS**  
 29TH JUNE - 4TH JULY  
 Topic  
 Artificial intelligence based Operational Systems  
 Development & Deployment

**29**  
 JUNE 2020

11:30 AM  
 TO  
 12:30 PM

Platform: Zoom

Dr. V. K. Panchal  
 Former Director,  
 DRDO  
 Delhi

Organized by  
 Department of Computer Science and Engineering  
 Invertis University, Bareilly

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**Flying Ad-Hoc Networks (FANETs)**

2019-20 → Multiobjective Decision based on River Dynamics, Energy Generation from Traffic on the Flood Problem of Kosi River

2016-17 → Exploring Chinese Culture, Literature and Philosophy: Concept Transformation

2011 → NASA GRACE Inter Planetary Missions, Missions Mars & New Teerates: Multi-vehicle based optimization, system optimization

Anticipatory Computing: Battlefield Planning

Big Data, Sky Computing, Social Networks, Conceptual Networks

Nature inspired: Membrane Computing, Quantum Computing

Swarm Intelligence: ACO, BFO, BBO, PSO, CO, FF, BCO

Swarm Behavior, Nature Inspired Techniques

Intelligence, Wisdom Technology, Semantic Web, Ontology

Remote Sensing: Approximate Reasoning, Vagueness, Uncertainty

---

**Artificial Intelligence**

Artificial intelligence (AI), the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings.

The term is frequently applied to the project of developing systems endowed with the intellectual processes characteristic of humans, such as

**the ability to reason, discover meaning, generalize, or learn from past experience.**

**Reasoning  
 Similarity  
 Approximation  
 Cognition  
 Concepts  
 Optimization  
 Ambiguity  
 Uncertainty  
 Imprecision  
 Anticipation  
 Partial Truth**

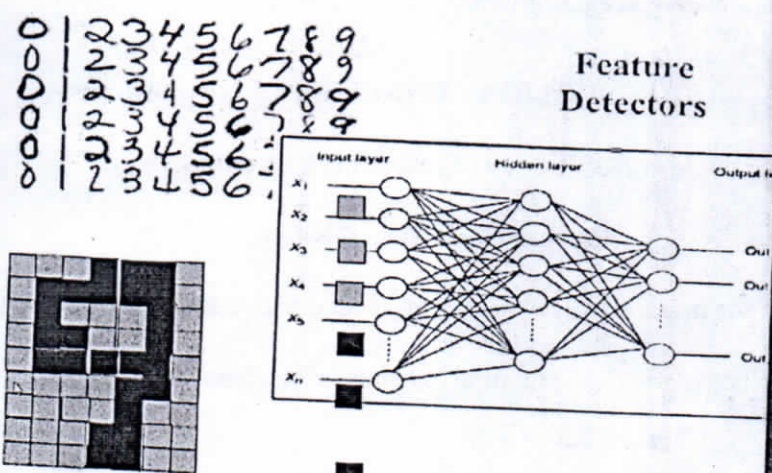


Session number: 2  
 Date: 29 June 2020  
 Time: 2:30 PM onwards  
 Speaker: Dr. Ajay Indian  
 Organization: Assistant Professor, Central University of Rajasthan, Ajmer  
 No. of participants: 123  
 Topic: Deep Learning

**Key Points:**

1. Explained what is deep learning and how it is better than any other technique used for image, speech etc.
2. How the error in a network is calculated and how can it be minimized.
3. Explained about linear separability.
4. Discussed about decision boundary and how can we construct a good non-linear decision boundary.
5. Explained how feature vectors can be formed and how can we find self-organizing feature vectors.

One Week Faculty Development Program  
 On  
**INTELLIGENT SYSTEMS**  
 29TH JUNE - 4TH JULY  
 Topic: Deep Learning  
 29 JUNE 2020  
 02:30 PM TO 03:30 PM  
 Platform: Zoom  
 Dr. Ajay Indian  
 Assistant Professor,  
 Central University of Rajasthan,  
 Ajmer  
 Organized by  
 Department of Computer Science and Engineering  
 Invertis University, Bareilly



**An Introduction to Deep Learning**

Dr. Ajay Indian  
 Assistant Professor  
 Department of Computer Science  
 Central University of Rajasthan  
 Ajmer, Rajasthan, India

*Santosh*  
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2020-06-29 14:55:19



**Session number:** 3  
**Date:** 30 June 2020  
**Time:** 10:30 AM onwards  
**Speaker:** Dr. Mohit Kumar  
**Organization:** Assistant Professor, NIT Jalandhar  
**No. of Participants-:** 142  
**Topic:** Integration of Cloud with IoT

**Key Points:**

1. Discussion about Virtualization. By using Virtualization resources can be used easily. Hypervisor is used to provide Virtualization.
2. There are four types of cloud service layers- IaaS, PaaS, SaaS.
3. Discussion about Region and Availability zones.
4. There are four types of cloud deployment models- Public, Private, Hybrid, Community.
5. Amazon Web Services, Spot Instances, Scheduling Algorithms are Discussed.
6. Limitations of Cloud Services, IoT (Internet of Things) are discussed.

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One Week Faculty Development Program  
 On  
**INTELLIGENT SYSTEMS**  
 29TH JUNE - 4TH JULY  
 Topic  
**Integration of cloud with IOT**  
**30**  
 JUNE 2020  
 10:30 AM TO 11:30 AM  
 Platform: Zoom  
 Organized by Department of Computer Science and Engineering, Invertis University, Bareilly  
**Speaker**  
**Dr. Mohit Kumar**  
 Assistant Professor,  
 NIT,  
 Jalandhar

Zoom Meeting Controls: Mute, Video Off, Chat, Share, Participants, Meeting Controls, Leave, Recording  
 Slide Title: TYPE 1 VS. TYPE 2 HYPERVISORS  
 Speaker: Arvind Singh

AWS Console: DISCOVER HOW WE DO IT  
 Video Player: From Mohd Vasim Ahmad to All voice is breaking again  
 Meeting Controls: Recording, Mute, Video Off, Chat, Share, Participants, Meeting Controls

226  
38



Session number : 4  
 Date : 1st July 2020  
 Time: 10:30 AM onwards  
 Speaker : Dr.Manu Pratap Singh  
 Organization: Professor, Dr. B. R. Ambedkar University, Agra  
 No. of participants: 105  
 Topic : Artificial Intelligence and Its aspects

**Key Points:**

1. Recent development in IT industry such as soft computing, IOT, Intelligent networks, and AOE ( artificial intelligence of everything) were introduced.
2. Symbolic processing as a key to artificial intelligence was explained, and new flavours like cognitive computing and nature-inspired computing were briefly discussed.
3. Components, disciplines, applications, algorithms, growth and dangers of AI were discussed, some examples of robots like autonomous walker and swimming eel were shown.

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One Week Faculty Development Program  
 On  
**INTELLIGENT SYSTEMS**  
 29TH JUNE - 4TH JULY

Topic .....  
**Artificial Intelligence and its aspects**

01

JULY 2020

10:30 AM  
TO  
11:30 AM



Speaker

**Dr. Manu Pratap Singh**  
 Professor,  
 Dr. B.R. Ambedkar University,  
 Agra

Platform: Zoom  
 Organized by  
 Department of Computer Science and Engineering  
 Invertis University, Bareilly

The screenshot shows a Zoom meeting interface with four slides visible:

- Slide 1: When Do We Use Machine Learning?**
  - ML is used when:
    - Human expertise does not exist (navigating on Mars)
    - Humans can't explain their expertise (speech recognition)
    - Models must be customized (personalized medicine)
    - Models are based on huge amounts of data (genomics)
  - Learning isn't always useful:
- Slide 2: Growth of AI**
  - Machine learning is preferred approach to
    - Symbolic reasoning, Natural language processing
    - Computer vision
    - Medical diagnostic analysis
    - Robot control
    - Computational biology
  - This trend is accelerating:
    - Improved machine learning algorithms
    - Improved data capture, increasing feature complexity
    - More accessible computers to write by hand
    - New strategies, Big data
    - Desire for self-organizing systems to learn, evolve autonomously
- Slide 3: Evolution of Computational Intelligence**
  - Diagram showing the evolution from Symbolic AI to Computational Intelligence.
- Slide 4: Applications of AI**
  - Diagram showing various applications of AI.

225  
21



Session number: 5  
 Date : 1st July 2020  
 Time: 4:00 PM onwards  
 Speaker : Mr. Sumit Jain  
 Organization: Monitoring Integration Engineer,  
 WilliamHill (bookmaker) Leeds, West Yorkshire,  
 UK  
 No. of participants: 111  
 Topic: Enterprise IT Monitoring & Observability

**Key Points:**

1. Explained about enterprise monitoring and how it is useful in IT industry.
2. Discussed about infrastructure monitoring and its application.
3. How Data Collection is done and how the integration is done using cloud native.
4. Discussed about DevOps Enablers its configuration and automation
5. Explained about SaaS and multi-tenancy, its security and real user monitoring

*Sumit Jain*  
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One Week Faculty Development Program  
 On  
**INTELLIGENT SYSTEMS**  
 29TH JUNE - 4TH JULY  
 Topic  
**Enterprise IT Monitoring & Observability**  
**01**  
 JULY 2020  
 04:00 PM  
 TO  
 05:00 PM  
 Platform: Zoom  
**Sumit Jain**  
 Monitoring Integration Engineer,  
 WilliamHill (bookmaker),  
 Leeds, West Yorkshire, UK  
 Organized by  
 Department of Computer Science and Engineering  
 Invertis University, Bareilly

16:20 | 03:27 Next slide  
**Scoring Criteria :**

- Infrastructure Monitoring
- Application Monitoring
- Change detection & Visibility
- Data Collection
- Integration (Cloud native/3rd party)
- Alerting Notifications
- Installation and DevOps Ecosystems
- Configuration & Automation
- Improved Triaging
- Scalability & Resilience
- SaaS & Multi-Tenancy
- Security
- Real User Monitoring
- Synthetic Monitoring
- Analytics & Reporting
- Cost & Licensing
- Support Capabilities

Zoom | Leave | Recording  
 Shimona Gupta  
 Dr. Mr. Nazrul Istam Barbhuyan  
 sjain  
 Arvind Singh (2)  
 Unmute | Start Video | Share | Participants | More

224



Session number: 6

Date: 1st July 2020

Time: 3:00 PM onwards

Speaker: Prof. Brijesh K. Gupta

Organization: IIT Delhi, Director Braanet Technologies Pvt. Ltd., Ghaziabad

No. of participants: 104

Topic: IoT

**KeyPoints:**

1. Defined the basic architecture of IoT and usability of the IoTs across various real-world applications.
2. Demonstrate and Hands-on various IoT applications.
3. IoT Business and opportunities.
4. Discussed current research status in IoT.

One Week Faculty Development Program  
On  
**INTELLIGENT SYSTEMS**  
29TH JUNE - 4TH JULY

Topic  
**IOT**

**01**  
JULY 2020


03:00 PM  
TO  
04:00 PM

Platform: Zoom

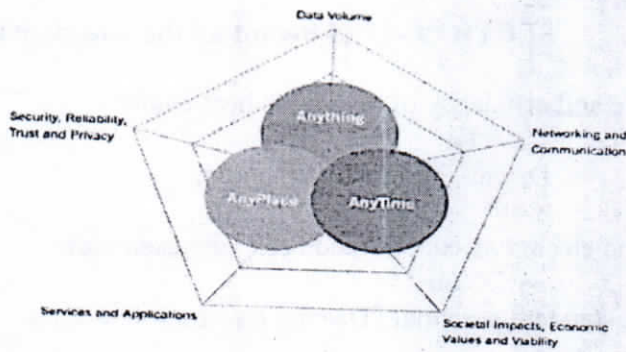
Prof. Brijesh K. Gupta  
Ex-IITian & Director,  
Braanet Technologies Pvt. Ltd.,  
Ghaziabad

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Department of Computer Science and Engineering  
Invertis University, Bareilly

**Speaker**

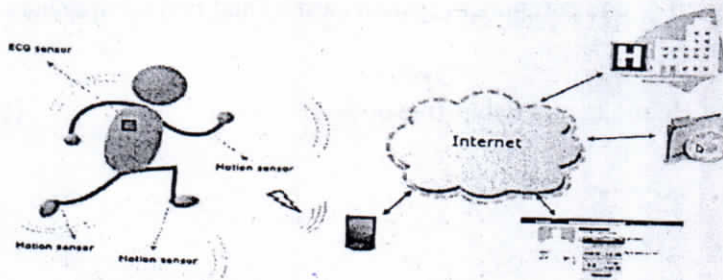


**Cyber-Physical-Social Data**



B.K. Brijesh Gupta et al., "Digital Technology Adoption in the Smart Built Environment", IET Sector Technical Briefing, The Internet of Things and Technology (IET), I. Borthwick (editor), March 2015.

**People Connecting to Things**



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Session number: 8  
 Date: 2nd July 2020  
 Time: 3:00 PM onwards  
 Speaker: Dr. Christos Sarakasis  
 Organization: Data Scientist, Covea Insurance, UK  
 No. of participants: 104  
 Topic: Machine/Deep Learning Techniques for Classification Problems

**KeyPoints:**

1. Introduction to Machine Learning.
2. Examples of machine learning algorithms, linear regression, multilinear regression, and logistic regression, SVM, KNN, Decision trees, etc.
3. Introduction to deep learning and its relationship with ANN.
4. Different forms of architectures of neural networks including single-layer perceptron, multilayer perceptron, Hopfield network, Boltzmann machine, etc. were discussed.
5. Classes of problems in machine learning-Regression and classification problems were explained.

One Week Faculty Development Program  
 On  
**INTELLIGENT SYSTEMS**  
 29TH JUNE - 4TH JULY  
 Topic  
 Machine/Deep Learning Techniques for Classification Problems  
**02**  
 JULY 2020  
 03:00 PM TO 04:00 PM  
 Platform: Zoom  
 Dr. Christos Sarakasis  
 Data Scientist,  
 Covea Insurance,  
 United Kingdom  
 Organized by  
 Department of Computer Science and Engineering  
 Inverclyde University, Saredly

Zoom  
**NEURAL NETWORK ARCHITECTURE TYPES**  
 SINGLE LAYER PERCEPTRON  
 HOPFIELD NETWORK  
 MULTILAYER PERCEPTRON  
 RECURRENT NEURAL NETWORK  
 LEARN RECURRENT NEURAL NETWORK  
 HOPFIELD NETWORK  
 BOLTZMANN MACHINE  
 LEGEND:  
 ○ INPUT UNIT    ● CONVEX UNIT    ▲ BICOLOUR INPUT UNIT  
 ○ OUTPUT UNIT    ● PERCEPTRON WITH DELTA UNIT    ▲ PHOROLOGICAL HIDDEN UNIT

Figure: Neural Network Architecture types.

**Types of problems**  
 There are two main classes of problems in Machine Learning:  
 • Regression problems - where the training data is continuous, i.e., the values of features and predictions are being drawn from the real line  $\mathbb{R}$ .  
 • Classification problems - where the predictions belong to a finite number of classes.

*Rettyack*  
 In what follows we will be talking about the second class, i.e., classification problems. In particular, we will discuss possible architectures for DevOps pipelines and what Machine Learning methods can guarantee trustworthy results in production level.

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 JULY

221  
 93



# International Symposium

## “Emerging Smart Materials for Advancement of Science and Technology”

on 11-12 June 2021

Organized By

**Department of Applied Science and Humanities, Faculty of Sciences**



**Patron**  
Dr. Umesh Gautam  
Chancellor,  
Invertis University, Bareilly



**Chief Guest**  
Prof. Rajendra Giriappa Sonkawade  
Professor, Department of Physics  
Shivaji University, Kolhapur

### Advisory Committee



Prof. Y. D. S. Arya  
Vice Chancellor



Prof. P. P. Singh  
Dean,  
Faculty of Science

### Organizing Committee



Dr. S. P. Goutam  
Convener



Dr. Sanjeev Kumar Jain (7217011270)

Dr. Ruchi Mishra (7217011267)

Dr. Yogesh Kumar (7217012771)

Mr. Arun Kaushik (7217011260)

### Invited Speakers



Prof. Devraj Singh  
Director,  
Veer Bahadur Singh  
Purvanchal University,  
Jaunpur



Dr. Shalini Trivedi  
Masaryk University,  
Brno, Czech Republic,  
Europe



Dr. Ratindra Gautam  
RML University,  
Ayodhya



Anupam Pramanik  
SRS Vidyamahapitha,  
University of Burdwan,  
West Bengal



Dr. Unkarsh Kumar  
National Chung  
Hsing University,  
Taichung, Taiwan



Dr. Nandini Sharma  
Guru Nanak Dev College,  
Punjab Technical  
University, Ludhiana,  
Punjab

Note - No Registration fees

**E-Certificate- After successful completion of the event**

Click here for Registration

<https://forms.gle/HFEwEoQEFd5N7DNt8>

Email:  
surya.g@invertis.org

Contact Number:  
7217011271; 8739032297





## International Symposium

*“Emerging Smart Materials for the Advancement of Science and Technology”*  
(ESMAST-2021)

Organized by

Department of Applied Science and Humanities, Faculty of Sciences,  
Invertis University, Bareilly (U.P.) India

Date: (11-12 June 2021)

First Day Schedule

[Click to Join Symposium of MS Team Platform](#)

Innagural Session (11/06/20)		Timings (09:30 am to 11:00 am)
Session Link	<u><a href="#">Click to Join Symposium</a></u>	
Session Coordinator	Dr. Sanjeev Kumar Jain	
09:30 am – 09:35 am	About the Symposium by Convenor, Dr. S. P. Gautam	
09:35 am – 09:40 am	Welcome of Dignitaries by the Head of the Department	
09:40 am – 09:55 am	Address by Dignitaries	
09:55 am – 10:00 am	Introduction of the Chief Guest by the Session Coordinator	
10:00 am - 11:00 am	Address by Chief Guest Prof. Rajendra Girjappa Sonkawade, Shivaji University, Kolhapur	
Technical Session-1(11/06/20)		Timings (11:00 am to 12:00 pm)
Session Coordinator	Dr. Ruchi Mishra	
11:00 am- 12:00 Noon	Invited talk by Prof. Devraj Singh, Director, Veer Bahadur Singh Purvanchal University, Jaunpur	
Lunch Break (12:00pm to 01:00 pm)		
Technical Session-2 (11/06/2021)		Timings (01:00 pm to 03:00 pm)
Session Coordinator	Dr. Yogesh Kumar	
01:00 am- 02:00 pm	Invited talk by Dr. Nandini Sharma, Guru Nanak Dev College, Punjab Technical University, Ludhiana, Punjab	
02:00 pm- 03:00 pm	Invited talk by Dr. Anupam Pramanick, SRS Vidyamahapitha, University of Burdwan, West Bengal	

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## International Symposium

*“Emerging Smart Materials for the Advancement of Science and Technology”*  
(ESMAST-2021)

### Second Day Schedule

[Click to Join Symposium of MS Team Platform](#)

#### Technical session-1 (12/06/2021)

Timings (11:00 am to 12:00 pm)

Session Coordinator	Dr. Ruchi Mishra
11:00 am- 12:00 am	Invited talk by Dr. Shalini Trivedi, Masaryk University, Brno, Czech Republic, Europe

#### Lunch Break (12:00pm to 01:00 pm)

#### Technical session-2

Timings (01:00 pm to 03:15 pm)

Session Coordinator	Dr. Yogesh Kumar
01:00 pm to 02:00 pm	Invited talk by Dr. Utkarsh Kumar, National Chung Hsing University, Taichung, Taiwan
02:00 to 03:00	Invited talk by Dr. Ratindra Gautam, RML University, Ayodhya
03:00pm-03:15pm	Vote of Thanks by Convenor, Dr. S. P. Gautam

*Santosh*

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BAREILLY



Department of Mechanical Engineering Invertis University, Bareilly

## Expert Lecture

on

Bio-healing materials: Building fire safety, Carbon capture and bacteria-modified self-healing materials



### Dr. Ajitanshu Vedratnam

(Professor-A Universidad de Alcalá, Madrid, Spain  
& Assistant Professor – Invertis University)

Venue : Invertis University, Bareilly

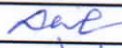





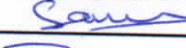


Date : 13-04-2021


Time : 10 : 30 A. M. Onwards

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BAREILLY



**Details of the Participants**  
**"Bio-healing materials: Building fire safety,  
carbon capture and bacteria modified self  
healing materials"**  
**(13/04/2021)**

S. NO	Name	Signature
1	Krishna Kant	
2	Anuj Kumar	
3	Ajit Kumar Kumar Singh	
4	Mr Amit Kumar	
5	Mohit Pathak	
6	Subodh Kumar Verma	
7	Manoj Kumar	
8	Sawan Kumar	
9	Dheeraj Sagar	

  
( Mr. Anuj Kumar )  
Head  
Department of Mechanical Engineering  
HOD, ME  
Invertis University  
Bareilly-243123, UP

  
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**BAREILLY**



Department of Mechanical Engineering

# Online Guest Lecture

Presented By ~

**Er. Vineet Kumar**  
Project Manager,  
BOSCH, USA

On Topic ~

**Active Safety in Car**

Activity Coordinator -

Mr. Ajit Kumar Singh

Convener -

Mr. Dheeraj Sagar

Co-Convener -

Mr. Amit Kumar

Venue - Online on Google Meet

**INVERTIS**  
UNIVERSITY BAREILLY



Date ~  
**12** th | JUNE  
2021

Time ~  
11:00 AM Onwards

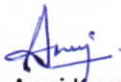
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*S. K. Singh*



**Details of the Participants  
Active Safety in Car (12/06/2021)**

S. NO	Name	Signature
1	Ajitanshu Vedrtnam	Ajitanshu
2	Krishna Kant	Kant
3	Anuj Kumar	Anuj
4	Ajit Kumar Kumar Singh	Ajit
5	Mr Amit Kumar	Amit
6	Mohit Pathak	Mohit
7	Subodh Kumar Verma	Subodh
8	Manoj Kumar	Manoj
9	Sawan Kumar	Sawan
10	Dheeraj Sagar	Dheeraj

  
( Mr. Anuj Kumar )  
HOD, ME Head  
Department of Mechanical Engineering  
Invertis University  
Bareilly-243123.

  
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