# **XXXIV ANNUAL IAPT CONVENTION 2019**

# NATIONAL SEMINAR

ON

# RECENT ADVANCES AND INNOVATIONS IN PHYSICS TEACHING & RESEARCH [13-15, October, 2019]

Organised by

Deptartment of Applied Science, IIIT, Allahabad &

Indian Association of Physics Teachers (IAPT), RC-4, Uttar Pradesh

# **REGISTRATION FORM**

Prof./Dr./Ms./Mr				
Designation & University/On	rganization <u>:</u>			
Address for Correspondence	e:			
City: State	e:	Pincode:	:	
Phone/Mobile No.:	E-	mail:		
Are you presenting paper?	YN	If yes, give the	title of the	e paper and mode of
presentation (Oral/Poster):_		ATI T	DDA	TINC
Additional Information:				
1. Category:	Y		V	
(a) Student:	Y		V	
(b) Delegate:		AV.	#= \	
(c) Executive Council member	·		N	
2. Accommodation required	: Y	DV!	N A	
Number of accompanying per	rsons:	(e	TAU	
(Accommodation will be on members of IAPT)	twin-sharing basis	for the three da	ays of the	Seminar, except for the EC
3. Travel Plan:				
4.Payment Details: Registrat	ion Charge:			
ONWARD JO	URNEY	Ac-	RETUR	N JOURNEY
DATE TIME MO	ODE OF TRANSPORT	DATE	TIME	MODE OF TRANSPORT
commodation Charge:	Total	Amount:		_
Online payment transfer ID:				
Bank:	_			
[Please submit the Registration		spect to e-mail I	<b>D</b> iapt2019	@gmail.com <i>on or before the</i>
last date of registration]				G
Place and Date:				Signature of Participant



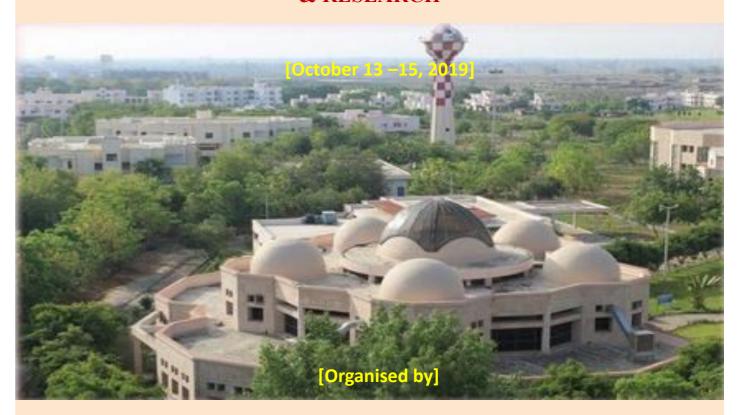




# XXXIV ANNUAL IAPT CONVENTION –2019 NATIONAL SEMINAR

On

# RECENT ADVANCES & INNOVATIONS IN PHYSICS TEACHING & RESEARCH



# INDIAN INSTITUTE OF INFORMATION TECHNLOGY, ALLAHABAD & INDIAN ASSOCIATION OF PHYSICS TEACHERS (IAPT), RC-4, U.P.

# **CONVENER:**

Dr Akhilesh Tiwari, IIIT-A [atiwari@iiita.ac.in]

**CO-ORDINATOR:** 

Dr.Pramod Kumar, IIIT-A [pkumar@iiita.ac.in]

# **VENUE:**

Department of Applied Science
IIIT-Allahabad, Prayagraj
Uttar Pradesh-211015
India

# **CENTRAL THEME OF THE SEMINAR:**

Innovations in physics teaching and research

# **SUB THEMES:**

Use of information technology, Online physics teaching and learning, Physics teaching through simulation, Research for UG students, Designing laboratory experiments for different levels, Teaching physics through assignments, Blended mode of learning and flip classroom, Evaluation method for school and college level, Innovating methods for teaching physics, Recent advances in physical sciences.

#### **PAPER SUBMISSION:**

One page abstract (in the prescribed format) on any one of the topics of the different subject as should be submitted through e-mail:iapt2019@gmail.com. Full papers shall be considered for e-proceeding after the seminar.

# **REGISTRATION:**

Registration will be done online or by e-mail to iapt2019@gmail.com in the prescribed format. Registration process will start from the first week of June 2019.

The Registration Fee for a delegate/accompanying person will be Rs. 1500/-(covering local hospitality and seminar materials excluding accommodation).

# **TRAVEL SUBSIDY:**

A limited number of papers chosen for oral/poster presentations and the first author alone will receive travel subsidy as per IAPT rules.

#### **MODE OF PRESENTATION:**

**Oral or Poster in convention format:** 

Invited talks by Eminent Speakers, Selected Oral Presentation, Interactive Poster Presentation, Experiments and Demonstrations, Award function for NGPE Gold medals, IAPT-DSM, NCIEP, NCICP, NCEWP competitions, and IAPT General Body Meeting.







# RESEARCH DOMAINS OF DEPARTMENTS IN HIT-A:

# 1) Department of Applied Sciences:

- (a) Spintronic thin film preparation, Characterization, Spintronic device, Topological thin film preparation, Topological based device fabrication, Magnetic Refrigeration Characterization, Meta-material, Photonic Crystals, Bio-sensor based device fabrication, Heat, mass transfer.
- (b) Structural. Electronic, Optical Properties of Nanostructures, Structural and Electronic properties of High Tc Superconducting Materials, Quantum Computing, Synthetic Medicinal Chemistry and Natural Product Chemistry Bio-Technology, Natural Products, Nuclic acid, DNA, RNA, pattern recognition, genetic algorithm.
- (c) Structural Biology, Parallel Computing, Signal transduction in Mycobacterium tuberculosis, Nano-biotechnology, Ultrasonic imaging and tissue characterization, Photo-acoustic imaging, Clinical diagnostics and nanofabricated devices
- (d) Flow cytometer chip, Cell sorting chip, Cell electroporation, Cellular-chip for single cell analysis, bacterial growth studies, Blood on chip analysis, Di-electrophoresis (DEP) chip, Electrophoresis chip
- (e) Quantum Field Theory, Gravitation, Black Holes, Cosmology, Holography, Combinatorial Topology, Commutative Algebra, Algebraic Geometry and Cryptography

# 2) Department of Electronics and Communication Engineering:

- (a) Computational Nano-electronics, Nanoscale energy transport, Low Power Circuit design, Analog and Mixed Signal VLSI Design, Memory Design, VLSI Technology, Semiconductor Device design, Analog/RF circuit design, VLSI system design
- (b) Hardware/Software Architecture co-design, Polarimetric Applications on Synthetic Aperture Radar (SAR) Images, Satellite Image Processing, Microwave Remote Sensing, SAR Image classification.
- (c) Signal Processing, Cooperative Relaying Communications, Optical Data Storage, Optical Networks, Microelectronics, Automatic Control System, Computer Networks, Satellite Image Processing, Microwave Remote Sensing, SAR Image classification

# (3) Department of Information Technology:

- (a) Graphics and Visual Computing, Pattern Recognition, Artificial Neural Networks, Advance Data Mining, Big, Big Data Storage, Robotics, Large Astronomical Data Analysis, High Performance Computing, Mobile Networks, Pattern Recognition, Data Compression, Mobile Data Management
- (b) Multi-Robot Coordination, Intelligent Vehicles, Intelligent Transportation, Hybrid Soft Computing, Soft Computing, AI, Network & Information Security, Computer Controlled Systems, Humanoid robots, Machine vision and processing, Fractal Geometry, scheduling theory, OS
- (c) Machine Learning, Blind Source Separation, Computational Neuroscience, Speech and Language Processing, Brain Simulation, Cognitive Science, Mobile Multimedia









Faculty, Scientists, Ph.D. Scholars, MTech., M.Sc., BSc, School Students

# **CONTACT DETAILS FOR GENERAL INFORMATION:**

S.No.	Problem Type	Person	Contact No.	E-Mail ID
1.	Registration Process	Faizan Ahmad	09999660478	iapt2019@gmail.com
2.	Abstract Submission	Shailesh Kumar	08054593314	iapt2019@gmail.com
3.	Traveling	Gyanendra K. Maurya	07266852417	iapt2019@gmail.com
4.	Accommodation	Dinesh Choudhary	09718837131	iapt2019@gmail.com
5.	Fooding	Ankit Sing <mark>h</mark>	07905836136	iapt2019@gmail.com

# **ACCOMMODATION:**

Subsidized shared accommodation is limited and will only be provided on first come first serve basis to the registered delegates for 3 days (October 13-15, 2019).

S.No.	Type of Accommodation	Charges Per Person Per Night	Total Charges For 3 Days
1.	AC	800 ₹/-	2400 ₹/-
2.	Non-AC	375 ₹/-	1125 ₹/-
3.	Hostel Rooms	275 ₹/-	825 ₹/-







# **PAYMENT DETAILS:**

Registration and accommodation fee can be transferred/deposited online to the account of IAPT RC-4 having following details-

Bank Name: State Bank of India Account no.: 30996838478

**Branch Code:** 10891

**IFSC:** SBIN0010891

The payment transaction receipt along with filled, signed and scanned registration form must be mailed to email ID iapt2019@gmail.com on time.

# **IMPORTANT DATES:**

Last date for Registration and for advance booking of Accommodation: September 15, 2019

Abstract Submission Opens	June 01, 2019
Abstract Submission Closes	August 01, 2019
Online Full Manuscript Submission Opens	June 15, 2019
Online Full Manuscript Submission Closes	August 30, 2019
Acceptance of Full manuscript	September 05, 2019
Registration Deadline	September 15, 2019

# **CONTACT DETAILS:**

Name	E-mail ID	Contact
Dr. Akhilesh Tiwari	atiwari@iiita.ac.in	09450141862
Dr. Pramod Kumar	pkumar@iiita.ac.in	09616626504
Dr. Srijit Bhattacharjee	srijitb@iiita.ac.in	07376433448

E-mail ID: iapt2019@gmail.com







# **MOTIVATION:**

A worthwhile, relevant and significant interaction demand the speaker to listen to the students. It is important for a teacher or a researcher to make the grounds of the students as strong as possible in his interest field. In future, these students and researchers also have the same responsibility for the budding scientists. This chain evolves the science through different stages as in Problem, Imagination, Experiment, Observation and Conclusion which is what we call the Science is. Different students have different ability to deal with the problem. This ability comes form the practices with logical thinking while dealing with the task. Accordingly, a teacher or a researcher should be able to shape the future of the student to deal with such complexities. The clarity of lectures and the instrumentations are not enough to give a better impact on scientific society whereas better communication skills leave a better footprints to students. This influential guidance and collaborative work with young minds, make us to be updated with recent advances in physics teaching and training, globally.

# **ABOUT IIIT-ALLAHABAD:**

Indian Institute of Information Technology, Allahabad is our sacred place of learning, where we learn and remain committed to life long learning with a focused objective that the outcome of learning is to accomplish notch class performance all through, and everyone who is associated thus should create a niche for him/herself. We stand to ensure Quality in Excellence. We pledge that there shall be 'Quality in the Show but certainly not Show in the Quality'. IIIT-Allahabad aims to evolve an integrated ambiance of creative learning, researching for novelties, contributing to the growth of knowledge, mapping the knowledge into innovations, innovations in terms of innovative products, services and also in terms of re-engineering the education process itself, devising the newer tools and sophisticating the skills at higher level. The entire process of learning and researching should simply result in performing actions innovatively in and across the related faculties of Computer Science and Technology, Information Science and Technology, Electronics and Communication Technology, Applied Science and Technology, encompassing humanity. The faculty of Management Studies should add to the value of the glory that the IIIT-A hopes to reach. Commensurate to this, IIIT-A should ensure to contribute in creating a strong second line for the World, for India and also to steer the institution locally; and in turn make the second line to commit itself to the responsibility creating a more powerful follow-up line to perpetuate lifelong learning, innovating and creating the future as infinite ripples.

Allahabad or Prayag is also called the "Tirth Raj", the king of all pilgrimage centers. There are many references to Prayag or Allahabad in Indian epics, Vedas and Puranas. Allahabad stands at the confluence of the Ganga and Yamuna (two of India's holiest rivers) and Saraswati River (a mythical river which is not visible). The place where river Ganga and river Yamuna meet is called Sangam (union). Sangam is the venue of many sacred fairs and rituals, and attracts thousands of pilgrims throughout the year. The most important event at Prayag is the Kumbha Mela. Apart from these it is an important place of learning, attracting people from other places to the city to gain education.

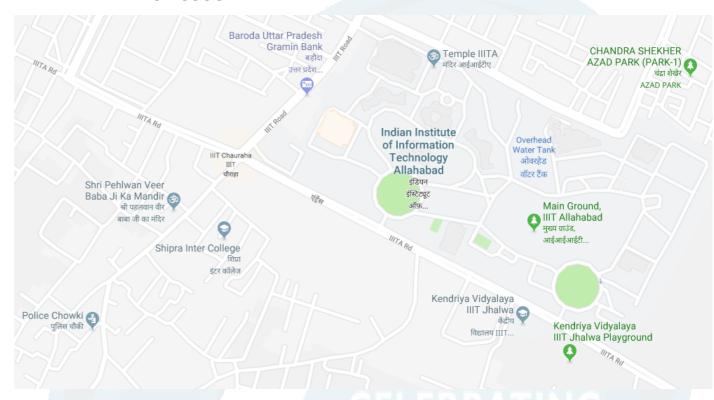
CHIEF PATRON	Prof. P. Nagabhushan,	Director, IIIT-Allahabad
PATRON Prof. Vijai A Singh		President, IAPT
	Dr. Akhilesh Tiwari	HOD, IIIT-Allahabad
ORGANISING	Dr. Pramod Kumar	IIIT-Allahabad
CHAIR	Dr. Srijit Bhattacharjee	IIIT-Allahabad



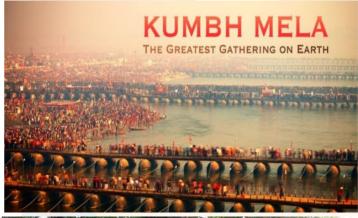


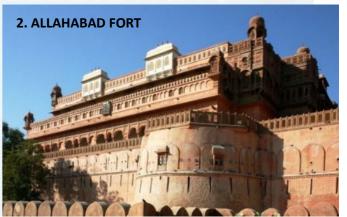


#### **IIIT-ALLAHABAD ON GOOGLE MAP:**

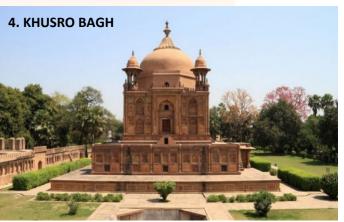


#### **VISITING PLACES IN ALLAHABAD:**















# LOCAL ORGANIZING COMMITTEE:

1.	Dr. Akhilesh Tiwari	Dept. of Applied Science, IIIT-Allahabad
2.	Dr. Pramod Kumar	Dept. of Applied Science, IIIT-Allahabad
3.	Dr. Srijit Bhattacharjee	Dept. of Applied Science, IIIT-Allahabad
4.	Dr. Abdullah Bin Abu Baker	Dept. of Applied Science, IIIT-Allahabad
5.	Dr. Anand Kumar Tiwari	Dept. of Applied Science, IIIT-Allahabad
6.	Dr. Sumit Kumar Upadhyay	Dept. of Applied Science, IIIT-Allahabad
7.	Dr. Amaresh Kumar Sahoo	Dept. of Applied Science, IIIT-Allahabad
8.	Dr. Amit Prabhakar	Dept. of Applied Science, IIIT-Allahabad
9.	Dr. Ashutosh Mishra	Dept. of Applied Science, IIIT-Allahabad
10.	Dr. B. S. Sanjeev	Dept. of Applied Science, IIIT-Allahabad
11.	Dr. Nidhi Mishra	Dept. of Applied Science, IIIT-Allahabad
12.	Dr. Pritish Varadwaj	Dept. of Applied Science, IIIT-Allahabad
13.	Dr. Ratan Kumar Saha	Dept. of Applied Science, IIIT-Allahabad
14.	Dr. Sangeeta Singh	Dept. of Applied Science, IIIT-Allahabad
15.	Dr. Sintu Kumar Samanta	Dept. of Applied Science, IIIT-Allahabad
16.	Prof. Tapobrata Lahiri	Dept. of Applied Science, IIIT-Allahabad
17.	Prof. Krishna Misra	Dept. of Applied Science, IIIT-Allahabad
18.	Dr. Animesh Ojha	HOD, Dept. of Physics, MNNIT-Allahabad
19.	Dr. Naresh Kumar	Dept. of Physics, MNNIT-Allahabad

# CONVENTION AND SEMINAR ON WEB:

Will be updated soon

# REGISTER FOR THE SEMINAR ONLINE AT:

Will be updated soon







# NATIONAL ADVISORY COMMITTEE:

1.	Prof. H.C. Pradhan	President, Indian Association of Physics Teachers (IAPT), Mumbai
2.	Prof. Bhupati Chakraborty	General Secretary, Indian Association of Physics Teachers (IAPT), Kolkata
3.	Prof. Harshawardhan Wanare	Indian Institute of Technology, Kanpur
4.	Prof. S. Anantha Ramakrishna	Indian Institute of Technology, Kanpur
5.	Prof. Krishnacharya	Indian Institute of Technology, Kanpur
6.	Prof. K.V. Srivastva	Indian Institute of Technology, Kanpur
7.	Prof. Ram Kumar	Indian Institute of Technology, Kanpur
8.	Prof. K. Sethupathi	Indian Institute of Technology, Kanpur
9.	Prof. B.N. Dwivedi	IIT(BHU)
10.	Prof. Chandan Upadhyay	IIT(BHU)
11.	Prof. H. C. Verma	Indian Institute of Technology, Kanpur
12.	Prof. Vijay A. Singh	HBCSE, Mumbai
13.	Prof. K. N. Joshipura	Anand, Gujarat
14.	Prof. M. K. Harbola	Indian Institute of Technology, Kanpur
15.	Prof. Mushahi Husain	Ex. VC, Rohilkhand University
16.	Prof. Ashok Pandey	Distinguished Scientist, CSIR-IITR, Lucknow
17.	Prof. Sanjay Singh	IIT(BHU)





