Volume 7 Issue #8



FOR EVERYTHING AIIT

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A Bouquet of Wishes and blessings from the Eminent Leaders of our Country



International Conference on Reliability, Infocom Technologies and Optimization

# **EDITORS'S DESK**

This Edition is wholly dedicated to the 8th International Conference on Reliability, Infocom Technologies and Optimization ICRITO'2020). It's our gratification too, to thank the Very Honorable Dignities of our Country who posted their valuable words and blessings to the Organizers, authorities, faculties, students and staff for the Conference. We too, take pleasure to thank our authorities for their restless efforts to bring this conference to a huge success every year.

It is also to acknowledge the optimistic perception of our Honorable Prime Minister of India, who's vision is to develop our country, technically and digitally sound. ICRITO aims to develop and enhance the taste of ever emerging new trends of technology among young researchers, practitioners or dedicated youth of the country. The topics for the conference basically include Infocom Technologies, Networks, communication and Cyber Security, Quality and Reliability, Mathematical Optimization, Humanitarian Technologies and various other significant areas of existing and emerging technological trends.

For the students, working in the field of IT, ICRITO brings an extensive range of opportunities as it accepts the research papers and gives you your moment to present your paper. It is a huge platform to learn and share knowledge and experiences they



ASHISH SINGHAL EDITOR IN-CHIEF TECHASHI

ISHA GUPTA
MANAGING EDITOR
TECHASHI



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## DR. ASHOK K. CHAUHAN

FOUNDER PRESIDENT, RITNAND **BALVED EDUCATION FOUNDATION** (THE FOUNDATION OF AMITY INSTITU-TIONS AND THE SPONSORING BODY OF **AMITY UNIVERSITIES)** 

Each student of Amity will become a success story

Amity is not just a group of institutions which imparts world-class education, but an experience where everyone associated is part of a dream, a mission to see that we nurture truly great leaders.

In my over 30 years stay in West Germany I realized, through interacting with the over 6000 Europeans working for me, that we Indians have the intelligence, the talent and the potential to be the more successful people in the world. That is why we established the Ritnand Balved Education Foundation in 1986 to start institutions which will groom young future leaders to be complete, value-driven human beings and competent professionals with a deep passion for humanity. These will be the people who will lead the world.

Today, we are proud that Amity is synonymous with practical, industry focused education, and attracts the best students. The fact that our alumni are working in the best companies across the world is a testament to our extremely talented faculty who inculcate, by example, in each student the spirit of dedication, sincerity and loyalty, and to all the corporates who support our mission with so much enthusiasm.

Each one of our students will be a success story.

This is my dream; this is my commitment.



## DR. ATUL K. CHAUHAN

CHANCELLOR, AMITY UNIVERSITY
PRESIDENT, RITNAND BALVED
EDUCATION FOUNDATION
CEO, AKC GROUP OF COMPANIES

WE ARE CREATING CENTRES OF THOUGHT LEADERSHIP ACROSS THE WORLD, WHERE FACULTY, SCIENTISTS & BRILLIANT STUDENTS CAN EXPLORE AND EXPAND THE FRONTIERS OF KNOWLEDGE."

At Amity our aim and dream is to equip you and each Amitian with the right value system, caring nature for others and thorough professional knowledge so that you can be the leaders of our Country and the world who will change all this.



## DR. BALVINDER SHUKLA

VICE CHANCELLOR

AMITY UNIVERSITY, UTTAR PRADESH

The pursuit of knowledge has been one of the most important human traits that have led to the development of mankind from the beginning of time, but knowledge becomes valuable only when it is disseminated and applied to benefit humankind. With IT becoming entrenched amongst businesses across all sectors at the global front, modifications will unquestionably continue across the professional spectrum. However, these variations and expectations are opening wide horizons for the people to innovate and lead the development of progressive systems of technology, communication and information. Educators have always shown the path to greatness to the world. Today the educators around the world are breaking the barriers of routine learning and walking hand in hand with the changing world of technology.

Creativity and Innovation are the most important factors in establishing and maintaining a competitive advantage for growth and development. I would like to emphasize on the more frequent and fruitful deliberations of corporate leaders and researchers with the academia which, I am sure, will sensitize the need of coming together and help in developing long-lasting sustainable bonds and collaborations. At Amity, we strongly value our partnerships with Other Academic Bodies in India and Abroad, employers and community as we work cohesively to enhance the research outputs for nation building and societal upliftment. Whether through research development or by providing the future ready task force workforce, Amity is playing a distinctive role in furthering the nation's social, cultural, business and economic development.

It is a matter of sheer proud and delight to know that Amity Institute of Information Technology, Amity University Uttar Pradesh, Noida is organizing the 8th IEEE International Conference on Reliability, Infocom Technologies and Optimization ICRITO'2020) from 5th March to 6th March 2020, technically sponsored by IEEE UP Section. I welcome acclaimed academicians, Scholars and keen researchers from across the globe to the International Conference to motivate the youth while addressing the momentous issue of technology shift. I am sure that participants would benefit immensely through the interactive sessions and deliberations during this outcome-oriented Conference.

I recognize and appreciate the notable hard work of the conference committees in organizing this conference on an international platform. My heartiest congratulations are with Dr Ajay Rana, General Chair ICRITO 2020 & Director Amity Institute of Information Technology and the conference team for their sincerest efforts to make the conference a grand success.

I wish the Conference a grand Success!



## DR. AJAY RANA

DIRECTOR – AIIT

CONFERENCE GENERAL CHAIR – ICRITO 2020

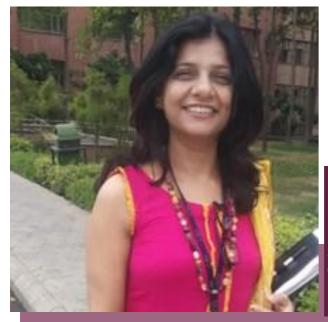
It is a matter of great privilege that scientists, researchers, scholars & corporate leaders from all across the globe have gathered under one roof to participate in IEEE 8th International Conference on Reliability, Infocom Technologies and Optimization (ICRITO'2020) organized by Amity Institute of Information Technology, Amity University Uttar Pradesh Noida, from 5th to 6th March 2020, Technically Co-Sponsored by IEEE UP Section. I heartily appreciate the support extended by IEEE and the interest shown by our corporate associates in making conference more rewarding, memorable and content rich.

We are living in an era which is considerably different from what it was a decade ago and the pattern will be continued in all years to come. It is the responsibility of Academia to remain well informed with ever evolving Technological advancements and imbibe all such paradigms of Technology and Innovation in its students. All apart, one of the most important and noteworthy characteristics for an Academic Institution these days is constant movement towards globalization.

At Amity we benchmark only against the best institutions around the world. A large number of distinguished faculty have been brought into Amity from India and abroad with proven record of high level of scientific accomplishments to supplement the cause. Our faculties and senior teams travel all over the globe to learn and imbibe the best practices so that we can give a solid foundation for learning. Amity promotes Research and Innovation at all Amity Institutions, particularly in the cutting-edge frontiers, Science and Technology domains of national importance. Amity has undertaken a wide spectrum of important activities, such as providing Amity Research Fellowship for meritorious students, State of the Art research infrastructures and many more.

At Amity, we strongly value our partnerships with Other Academic Bodies in India and Abroad, employers and community as we work cohesively to enhance the research outputs for nation building and societal upliftment. Whether through research development or by providing the skilled employees, Amity is playing a distinctive role in furthering the nation's social, cultural, business and economic development.

I am confident that the outcome of conference will be highly enriching and beneficial for all the participants and they would be able to work together for mutual benefits. I extend a very cordial welcome to all worthy participants and wish fruitful deliberations and a pleasant visit to Amity University, Noida.



## DR. LAXMI AHUJA

DEPUTY DIRECTOR

AMITY INSTITUTE OF INFORMATION

TECHNOLOGY

I know that the success of the conference depends ultimately on many people who have worked in planning and organizing both the technical program and supporting social arrangements. In particular, I wish our Director Prof(Dr)Ajay Rana sir for giving wise advice and brilliant suggestion for organizing the online conference; It was under his dynamic leadership and his perseverance that ICRITO 2020 have been executed.

The objective of the conference ICRITO 2020 is about promoting research and innovation in Information Technology to discuss all the new developments.

I congratulate to all the distinguished researchers, academicians and industry experts from various reputed Universities/Research Organizations and the entire student's team as well as team of faculties at AIIT, Noida for all the hard work

I also wish to offer my gratitude to our Founder president Dr. Ashok K. Chauhan sir, Hon. Chancellor Dr. Atul Chanuan sir and Vice Chancellor Madam Dr Balvinder Shukla for their continuous support and encouragement.

We're looking forward to an excellent meeting with great scientists from different countries around the world and sharing new and exciting ideas

I welcome all the delegates to be a part of the conference and make it a great success.



## DR. SAPNA SINHA

ASSISTANT DIRECTOR

AMITY INSTITUTE OF INFORMATION

TECHNOLOGY

Amity University is research driven university, providing conducive platform to faculty members and students to showcase their research work. Conferences organized, time to time in Amity University by different Institutions are one of the such kind of platform which brings researchers from Academia and Industry to unite at common arena. In this direction, Amity Institute of Information Technology (AIIT) organizes conference every year, this year also on June 4-5, 2020, IEEE 8<sup>th</sup> International Conference on Reliability, Infocom Technologies and Optimization (ICRITO'2020) is scheduled in in series with theme "Trends and Future Directions". Like every year, this year also many researchers across the world contributed research papers.

Every time success of conference act as encouragement to whole team to come up with another landmark conference in the series. ICRITO 2020 is the landmark conference with more than 1450 research paper contribution, participation of experts all across the globe, panel discussions and invited talks.

I wish to congratulate, organizing team and management to come together with such a wonderful event. I also wish to offer my gratitude to hon. founder president Dr. Ashok K. Chauhan, Hon. Chancellor Dr. Atul Chanuan and respected Vice Chancellor Madam Balvinder Shukla for their continuous support and encouragement.

On the behalf of AIIT, ICRITO' 2020 organizing team I welcome all to be a part of the conference and make it a great success.

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## PROF. (DR.) SUBHRANIL SOM

**CONFERENCE CHAIR - ICRITO'2020** 

Amity Institute of Information Technology under Amity University Uttar Pradesh has been organizing 8 th International Conference on "Reliability, Infocom Technologies and Optimization (ICRITO'2020) (Trends and Future Directions)" and inviting large number of academicians, researchers and industry experts, young professionals at one platform to deliberate on conference themes.

I would like to express my sincere gratitude and thanks to our respected Director sir Prof. (Dr.) Ajay Rana for his constant support and guidance to make the ICRITO'2020 grand success. We have developed complete online tools for the conferences by the brainchild idea of Director sir instead of sharing data with any third party vendor. I feel honoured to work under his leadership.

With the blessings of our beloved Honorable Founder President Dr. Ashok K Chauhan and under the vibrant leadership of dynamic Honorable Chancellor Dr. Atul Chauhan, University is committed to providing skill-based quality education comparable to the best by international standards and it subscribes to the philosophy of blending modernity with tradition and nurturing talent. I also extended my sincere gratitude to Honorable Vice-Chancellor Madam Prof. (Dr.) Balvinder Shukla, Amity University Uttar Pradesh for her constant support for organizing the ICRITO'2020 Conference.

It is a great pleasure to share that ICRITO'2020 is being organized at Amity University, Noida Campus, India in association with IEEE UP Section, India with a strong determination and motivation to explore future trends in Artificial Intelligence, ML, IoT, Reliability, Optimization, Cloud computing and many more.

The Objective of the conference is to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results. I am sure that this conference will provide an interactive platform to all the participants to widen their

knowledge domains and to explore and exchange new ideas, techniques and models in the theme of the conference.

I convey my heartfelt appreciation to all my esteemed collogues, distinguished researchers, academicians and industry experts from various reputed Universities/Research Organizations globally for their significant inputs in the form of invited talks and research papers on diverse areas concerning the theme. The Proceedings of this conference will surely be a good referral source to academicians, young enthusiasts and industry professionals from public and private sectors who strive to update their knowledge.

I welcome again all the delegates and wish for memorable event.

Prof. (Dr.) Subhranil Som
Professor
Conference Chair - ICRITO'2020
Senior Member of IEEE, IAENG, ISOC, AICSIT, LM-FOSET
Certified CISCO IT Essential 5.0, CCNAv7: Introduction to Network
Member - Departmental Research Committee (DRC)
Member - Student Research Committee (SRC)
Head - NTCC
m Review and Out Come Assessment Committee (MCA+BCA (Dual))

Chairman Program Review and Out Come Assessment Committee (MCA+BCA (Dual))

Member - UG & PG Program Structure Design Team

Member - University Question Paper Moderation Board

Empaneled PhD Supervisor of MAKAUT, WB in CSE and IT

Member - Course Review Committee

Member - Course Advisory Committee

Member - Board of Studies

Member - Institution Assessment Committee

Amity Institute of Information Technology,

Amity University Uttar Pradesh, Delhi NCR, India

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## DR. AJAY VIKRAM SINGH

**CONFERENCE CHAIR - ICRITO'2020** 

It gives us immense pleasure to share that under the able guidance of our Director Prof. (Dr.) Ajay Rana Amity Institute of Information Technology, Amity University Uttar Pradesh in association with IEEE, is organizing 8th International Conference on "Reliability, Infocom Technologies and Optimization (ICRITO' 2020) (Trends and Future Directions)".

We wish to express our appreciation and sincere gratitude to our beloved Dr. Ashok K Chauhan Sir, Founder President, Ritnand Balved Educational Foundation (RBEF), Dr. Atul Chauhan Sir, Chancellor, Amity University Uttar Pradesh (AUUP), Prof. (Dr.) Balvinder Shukla Ma'am, Vice-Chancellor, AUUP for their constant encouragement and guidance for organizing the ICRITO'2020 Conference.

We have received more than 1600 research paper out of which 263 research paper are accepted to be published in IEEE Xplore. The success of this Conference is solely on the dedication and efforts of innumerable people who started working on the preparations for almost a year in many ways to make this Conference become a reality. Eventually I express my special thanks and appreciation to all faculty members of Amity Institute of Information Technology, Amity University Uttar Pradesh.

The theme of the Conference is very timely and the Conference will be focusing on some of the important topics namely quality and reliability, mathematical modeling and optimization, safety and risk analysis, artificial intelligence, networking technologies and other related areas. The problems occurring in the society are more complex than those in the past. In order to solve these problems, we need a multidisciplinary approach on a global scale. ICRITO'2020 provides an opportunity for the meeting of International Researchers, Engineers, Scientists, and specialists in the various research and development fields of Information and Communication Technology.

Dr. Ajay Vikram Singh
CCNA, CCNI, CCNS, MIEEE, LMIETE
Conference Chair- ICRITO'2020
Joint Head
CISCO Academy Support Centre and Instructor Training Centre
Coordinator
Amity University Network CISCO Lab (AUN CISCO Lab)
Associate Professor
DRC Member
Chairman Program Review and Out Come Assessment Committee (M.Sc. NT&M)
Amity Institute of Information Technology
Amity University Uttar Pradesh, Noida, India



## DR. UPASANA SHARMA

CONFERENCE TECHNICAL CHAIR - ICRITO'2020

On behalf of Organizing Committee, we warmly welcome you to ICRITO'2020. The theme of ICRITO'2020 is Reliablity and Infocom Technologies and Optimization for tomorrow's industry with a vision to seek present innovative international research and source for the development of tomorrow's computing systems. The objective is to bring together innovative academics and industrial experts in the field of Quality & Reliability, Infocom Technologies & Optimization and Humanitarian Technologies to a common forum.

I would like to express my sincere gratitude to Director AIIT, Prof. (Dr.) Ajay Rana for their support and guidance. He has always been a source of knowledge, an inspiration for new ideas. His constructive comments are the primary support that makes this event possible.

We hope that ICRITO'2020 will be successful and enjoyable to all participants.

Dr. Upasana Sharma
Assistant Professor
Conference Technical Chair – ICRITO'2020
International Coordination
Program Leader, BCA
Database Club Coordinator
Member- BCA Syllabus Design Committee
Amity Institute of Information Technology
Amity University, Uttar Pradesh



#### भारत के उपराष्ट्रपति VICE-PRESIDENT OF INDIA MESSAGE

I am happy to know that Institute of Information Technology, Noida, Amity University Uttar Pradesh, is organizing its  $8^{th}$  International Conference on 'Reliability, Infocom, Technologies and Optimization', from March 5-6, 2020.

I am glad to note that Amity University has undertaken a wide spectrum of important activities, including Amity Research Fellowship for meritorious students, state-of-the-art research infrastructure and incubation center for entrepreneur start-ups for the all-round development of its students.

Apart from being a great learning experience, I am sure the event will prove to be an important platform for discussing a wide range of issues associated with role of science and technology and will lead to the synthesis of new ideas.

I extend my warm greetings and congratulations to the students, teachers and the staff of the Amity University, Noida and wish the event a grand success.

(M. Venkaiah Naidu)

New Delhi 18<sup>th</sup> February, 2020.



**Shri M. Venkaiah Naidu** Honorable Vice-President of India

अमित शाह AMIT SHAH



D.O 16.3/10.2/HMP-2020 गृहं मंत्री भारत

HOME MINISTER INDIA दिनाँक ३५ फरवरी, 2020

प्रो. (डॉ.) अजय राणा जी,

अमेटी इंस्टिट्यूट ऑफ़ इनफार्मेशन टेवनोलॉजी, अमेटी विश्वविद्यालय, नोएडा (उत्तर प्रदेश) द्वारा दिनाँक 05 से 06 मार्च, 2020 को आयोजित होने वाले 8वें International Conference on Reliability, Infocom Technologies and Optimization में मुख्य अतिथि के रूप में मेरी उपस्थिति के सम्बन्ध में आपका आमंत्रण पत्र प्राप्त हुआ।

प्रधानमंत्री नरेन्द्र मोदी जी की सरकार, देशवासियों की मूलभूत आवश्यकताओं को पूरा कर, जन-जन की आकांक्षाओं के अनुरूप एक सशक्त, सुरक्षित, समृद्ध और सर्वसमावेशी भारत के निर्माण की दिशा में आगे बढ़ रही है। 'नए भारत' के स्वर्णिम भविष्य के पथ पर देश के विकास में, देश की समस्याओं के समाधान में तकनीक के पुरोधाओं का योगदान और भूमिका अमूल्य है। हर्ष का विषय है कि आप इसी विषय पर अंतर्राष्टीय सम्मेलन का आयोजन कर रहे हैं।

खेद है कि आधिकारिक एवं पूर्व व्यस्तताओं के कारण मेरा इस सम्मेलन में शामिल हो पाना संभव नहीं है। मैं, सम्मेलन में सहभागी सभी छात्र-छात्राओं के उज्ज्वल भविष्य की कामना करते हुए सम्मेलन के सफल आयोजन हेतु अपनी शुभकामनाएँ प्रेषित करता हैं।

शुभकामनाओं सहित।

(अमित शाह)

प्रो. (डॉ.) अजय राणा, वरिष्ठ उपाध्यक्ष और डीन अमेटी शिक्षा समूह, ई-2, ग्राउंड फ्लोर, अमेटी विश्वविद्यालय कैंपस, सेक्टर - 125, नोएडा – 201 303

> Office: Ministry of Home Affairs, North Block, New Delhi-110001 Tel.: 23092462, 23094686, Fax: 23094221 E-mail: hm@nic.in



**Shri Amit Shah** Honorable Home Minister



Ramesh Pokhriyal 'Nishank'



मंत्री मानव संसाधन विकास भारत सरकार MINISTER HUMAN RESOURCE DEVELOPMENT **GOVERNMENT OF INDIA** 



#### **MESSAGE**

I am delighted to learn that the Amity Institute of Information Technology, Noida (U.P.) of the Amity University is organising its "8th International Conference on Reliability, Infocom Technologies and Optimization" on 5th-6th March, 2020.

It is heartening to note that scholars, domain experts and business leaders will converge on the occasion to deliberate and exchange emerging knowledge in the field of science, technology and education. I am sure there would be brainstorming sessions making tangible contribution to the transformation of humanity for greater good. Amity has made spectacular achievements and emerged in a short span as a University of wide renown. I have no manner of doubt that given the vision, unwavering commitment and indefatigable efforts to excel, Amity University will attain new heights of excellence globally.

I congratulate the organisers, the participants and wish the Conference a grand success.

(Ramesh Pokhriyal 'Nishank')



सबको शिक्षा, अच्छी शिक्षा

Room No. 3, 'C' Wing, 3rd Floor, Shastri Bhavan, New Delhi-110 115 Phone: 91-11-23782387, 23782698, Fax: 91-11-23382365 E-mail: minister.hrd@gov.in



Shri Ramesh Pohriyal Honorable Minister of H.R.D.

रविशंकर प्रसाद **RAVI SHANKAR PRASAD** 





मंत्री संचार, विधि एवं न्याय इलेक्ट्रॉनिकी और सूचना प्रौद्योगिकी भारत सरकार MINISTER OF Communications, Law & Justice and Electronics and Information Technology

#### Message

The niche that Amity Universe has carved for itself in the arena of higher education is unequivocal. The frequent events and interactions that Amity organizes from time to time help in exchange and firming up of views and making concrete suggestions.

Our Hon'ble Prime Minister has envisioned a 5Trillion-dollar economy for the country by the year 2024 and the Government is putting in all efforts to make it a reality. It has been the endeavour of the Government to make the environment conducive for the investor and entrepreneur alike to carry on with their business interest smoothly. Colossal improvement in the ranking of India in World Bank's Report on Ease of Doing Business is attributable to the relentless efforts of the Government in this direction.

The vision of the Prime Minister can be achieved only with the concerted efforts of the Government and the stakeholders. Use of technology is an important factor in fulfilling this vision. Technology, as we all know, is changing and advancing day by day in order to keep pace with Industry 4.0. Artificial Intelligence is the mantra of the day. Our aim has to be on how to use the technology optimally to make the commercial activities viable and at the same time, reliable.

I hope the Eighth International Conference on Reliability, Infocom Technologies and Optimisation being organised by Amity Institute of Information Technology, Noida, on 5-6 March 2020 will discuss the ways and means to address the challenges and issues in achieving a strengthened world

Best wishes.



Sanchar Bhawan, 20 Ashoka Road, New Delhi - 110 001 Phone : 011-23739191, 23372177 Fax : 011-23372428





Shri Ravi Shankar Prasad Honorable Minister Law & **Justice.** Communications and Electronics and Information Technology

नरेन्द्र सिंह तोमर NARENDRA SINGH TOMAR



कृषि एवं किसान कल्याण, ग्रामीण विकास तथा पंचायती राज मंत्री भारत सरकार कृषि भवन, नई दिल्ली MINISTER OF AGRICULTURE & FARMER WELFARE, RURAL DEVELOPMENT AND PANCHAYATI RAJ GOVERNMENT OF INDIA KRISHI BHAWAN, NEW DELHI



#### MESSAGE

It gives me immense pleasure to note that Amity Institute of Information Technology, Amity University, Uttar Pradesh is organizing its  $8^{th}$  International Conference on Reliability, Infocom Technologies and Optimization, technically sponsored by IEEE, UP Section during  $5^{th}-6^{th}$  March, 2020 at Noida.

I have been made aware that Conference will be organised with brilliant partisans of the Education and Corporate World touching upon different issues and prerequisites in years to come in the field of science, technology and education. The Sessions during the Conference aim to have the next level of brainstorming amongst the chosen few influences who are the leading transformers of today's world, towards the augmented one.

I have also been made aware that accomplished people from industry, bureaucrats, foreign diplomats, researchers, scientists and students from across the globe are expected to participate in the Conference.

I extend my best wishes for a grand success of the event.

(Narendra Singh Tomar)

Office: 'G' Wing, Ground Floor, Krishi Bhawan, New Delhi- 110001, Tel.: 011-23782373, 23782327 Fax: 011-23385876 Resi.: 3 Krishna Menon Merg, New Delhi-110001, Ph.: 011-23794697 / 98, Fax: 011-23794696



Shri Narendra Singh Tomar Honorable Minister of Agriculture & Farmers' Welfare, Rural development & Panchayati

-18------



## राज्यपाल, पश्चिम बंगाल Governor of West Bengal রাজ্যপাল, পশ্চিমবঙ্গ

17th February, 2020

#### Message

I am glad to learn that Amity University, Noida, Uttar Pradesh, is going to organise its 8<sup>th</sup> International Conference on Reliability, Infocom Technologies and Optimization on 5<sup>th</sup> & 6<sup>th</sup> March, 2020.

I am sure that interactions in the Conference will be highly useful for development of science, technology and education in India.

I convey my felicitations to all the teachers, students and staff of the University and wish the Conference all success.

Jagdeep Dhankhar

Shri Jag Honorak West Ber

Shri Jagdeep Dhankhar Honorable Governor of West Bengal

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ARIF MOHAMMED KHAN GOVERNOR OF KERALA



RAJ BHAVAN THIRUVANANTHAPURAM-695 099

14 February 2020

#### **MESSAGE**

I am glad to know that Amity University, Noida, Uttar Pradesh proposes to organize the 08th International Conference on Reliability, Infocom Technologies and Optimization on 05th and 06th March, 2020 at University campus.

I do hope that the conference would provide an ideal platform for young students to showcase their talents in the field of Science and Information Technology.

I compliment everyone behind this venture and wish the Conference all success.

[Arif Mohammed Khan]



**Shri Arif Mohammed Khan** Honorable Governor of Kerela

Acharya Devvrat Governor, Gujarat Gandhinagar-382021



आचार्य देवव्रत राज्यपाल, गुजरात गांधीनगर-३८२०२१ 1 9 FEB 2020

#### MESSAGE

I am happy to know that the Amity Institute of Information Technology, Noida, Amity University Uttar Pradesh is going to organize 8<sup>th</sup> International Conference on Reliability, Infocom Technologies and optimization.

I am also pleased to know that this International Conference will be organized with brilliant partisans of the education and corporate world touching upon different issues in the field of science, technology and education.

I hope this conference will provide an interactive platform to aspiring students and researchers and also play an important role for disseminating knowledge among budding scientists, students and researchers as well.

(Acharya Devvrat)



**Shri Acharya Devvrat** Honorable Governor of Gujarat

\_\_\_\_\_\_21\_\_\_\_\_\_\_\_

Satya Pal Malik Governor of Goa হাত্রে ঘাস্তা মালিক হাত্রব্যাস্ত্র, গাঁরা



Raj Bhavan Goa-403004 হাত্য গাবল জীবা-403004

No. G/2/2020/ 78 February 11, 2020.

Dear Siay Rover,

I have received your letter dated 28<sup>th</sup> January, 2020 inviting me to be the Chief Guest for the Two-day International Conference at Amity University at Noida on 5-6 March, 2020.

I would have been pleased to attend the Conference, but will not be able to do so, due to my prior official commitments. However, I convey my best wishes to you and all those associated with Amity University. My special blessings to the students of Amity University for success in their future endeavours.

With regards,

Yours sincerely,

(Satya Pal Malik)

Prof. Ajay Rana, Senior Vice President & Dean – Amity Education Group, E-2, Ground Floor, Amity University Campus, Sector – 125, Noida – 201303, Gautam Budh Nagar, U.P.



Shri Satya Pal Malik Honorable Governor of Goa LIEUTENANT GOVERNOR JAMMU & KASHMIR



RAJ BHAVAN JAMMU-180001

It gives me immense pleasure to know that the Amity Institute of Information Technology, Amity University, Noida ,Uttar Pradesh is organizing 8th International Conference on Reliability, Infocom Technologies and Optimization (ICRITO'2020), technically sponsored by IEEE UP Section, on 5th-6th March, 2020.

I gather that the conference which will be attended by industry experts, academicians, researchers, scientists, and students will take stock of the recent trends and developments in the field of science, technology, and education.

I believe in this Information age, revolution in computing and communications has led to Information and Communication Technologies become an integral part of our lives. Use of IT and computing technologies has moved from its conventional spaces and has transcended to touch the lives of billions of people by facilitating quick, efficient, and transparent delivery of public services thereby bridging the gap in achieving equitable development for all.

Information and Communication Technology has been a great driver of economic and social progress in modern societies by improving the enabling infrastructure and standard of living.

I believe we live in an ever evolving digital world today where innovations in technological processes and use of Information & Communication systems will continue at a rapid pace. These advances present many significant opportunities and at the same time they also pose challenges like privacy intrusion, data protection, intellectual property rights etc.

I think focus on research and innovation is a nation building strategy and I trust that the conference will renew interests among young researchers and they will deliberate upon and discuss all the different facets of this important theme and would eventually come up with research and recommendations leading to a better, transformed, and improved society.

I wish the conference a great success.

19 February 2020 Jammu

(Girish Chandra Murmu)



Shri Girish Chandra Murmu Honorable Lieutenant Governor of the Union Territory of Jammu & Kashmir

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apro/ug/2020/02/12/dt

Dt. 12-02-2020

#### Message

"IT+IT=IT; Indian talent + Information technology = India Tomorrow".

- Narendra Modi

There is almost no field in the world, where information and technology isn't involved these days. Today, the world is expanding and erasing the borders that previously were hindering the communication, trade and development. The quick availability of information and the expanding horizons of the technology have emerged as a powerful source of the march towards overall and inclusive development.

I am much pleased to learn that the Amity Institute of Information Technology of Amity University is organizing the 8<sup>th</sup> International Conference on Reliability, Infocom Technologies and Optimization, during 5<sup>th</sup> to 6<sup>th</sup> March 2020. I extend my heartiest best wishes for the success of the event. I am sure this event will add a further step to the ladder towards the overall and inclusive development and growth of the nation.

(Vijay Rupani)

To,
Prof. Ajay Rana, Dean,
Amity Education Group,
E-2, Ground Floor, Amity University Campus,
Sector-125, Noida - 201303 (U.P.)
Email: ajay rana@amity.edu



Shri Vijaybhai Rupani Honorable Chief Minister of Gujarat

Sarbananda Sonowal



#### Chief Minister, Assam Guwahati

Dispur 2.03.2020

#### MESSAGE

It gives me immense pleasure to learn that Amity University which is a part of Amity Education Group is organising an International Conference on reliability, infocom, technologies and optimization at Amity Institute of Information Technology Noids on 5 and 6 March, 2020. My congretulations to the entire fraternity of Amity Education Group on this occasion.

I hope the conference which will be the brain storming of intellectuals across the globe, deliberate on the digital technologies to achieve the flashpoints of the congregation. I at the same time hope that this international conference sets an agenda for our academia and technologists to reap digital technology for the welfare of human being.

I convey my best wishes for resounding success of the conference.

(SARBANANDA SONOWAL)



**Shri Sarbananda Sonowal**Honorable Chief Minister of Assam

\_\_\_\_\_\_25\_\_\_\_\_\_\_\_\_



Tele : 23011423 (O) ASCON : 35526 (Mil)

B/41066L/DO/Gen/Pers

Prof (Dr) Ajay Rana,
Dean
Amity Education Group,
E-2, Ground Floor,
Amity University Campus
Sector-125, Noida-201303 (U.P.)

इलैक्ट्रॉनिकी और यांत्रिक अभियंता महानिदेशालय रक्षा मंत्रालय एकीकृत मुख्यालय (सेना) नई दिल्ली - 110 105 Directorate General of Electronics and Mechanical Engineers Integrated HQ of MoD (Army) New Delhi - 110 105

14 Feb 2020

#### **MESSAGE**

Dear Prof Ajay

- .1. The fast pace technological advancements have enhanced necessity and utility of Information Technology. Today, the globalization of information technology has brought entire word to our neighbourhood. Quick accessibility of information and the ever enlarging platforms of technology have emerged as powerful tools to propel the entire word towards overall and inclusive developments in all spheres of life.
- 2. I am pleased to know that Amity Institute of Information Technology of Amity University is organizing the 8<sup>th</sup> International Conference on Reliability, Infocom Technologies and Optimization, during 5<sup>th</sup> & 6<sup>th</sup> March 2020.
- 3. I wish to extend my best wishes for the success of this event. I am sanguine that this event will initiate collaboration initiative, and channelize the efforts of researchers in the powerful technologies of the future

With regards,

yours sincerely



Major Gen J S Dhull, VSM

Addl Director General EME(B), Directorate General of Electronics & Mechanical Engineers, Integrated HQ of MoD (Army)



Lt Gen VK Sharma, AVSM (Retd)

AUMP/VCSectt/DO/05

| February, 2020

Prof (Dr) Ajay Rana, Sr Vice President & Dean, Amity University Noida, Uttar Pradesh

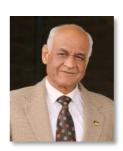
Dear Dr. Agay Rana;

- 1. I am very happy to learn that the 8<sup>th</sup> International Conference on Reliability, Infocom Technologies and Optimisation is being organized under the aegis of Amity Institute of Information Technology, AUUP, Noida, on March 5<sup>th</sup> and 6<sup>th</sup> 2020.
- It is heartening to note that the Conference covers an array of themes of such contemporary relevance, which, I am certain, will serve greatly to enrich the discourse and deliberations on the subject, as also potentially reveal new vistas of exploration in the discipline.
- 3. I wish the International Conference my best and pray that it is a grand success.

Best Wishes;

Lt Gen VK Sharma, AVSM (Retd)

Amity University Madhya Pradesh, Maharajpura, Gwalior - 474005 MP (India)
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Website: www.amity.edu/gwalior I Email: info@gwa.amity.edu



Lt Gen V K Sharma
Honorable Vice Chancellor,
Amity University
Madhya Pradesh

# **Invited Speakers and Eminent Guests**





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