



NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

The Trust is a Recipient of Prestigious Rajyotsava State Award 2012 Conferred by the Government of Karnataka
Awarded Outstanding Technical Education Institute in Karnataka-2016
Ring Road Bellandur Post Near Marathalli Bangalore -560 103 INDIA

TOP ENGINEERING COLLEGE OF INDIA as per



NATIONAL INSTITUTIONAL RANKING FRAMEWORK, 2018
Ministry of Human Resource Development, Government of India



AICTE SPONSORED



International Conference
On

“Innovative Research in Engineering, Management and Sciences”

(ICIREMS - 2019)

19th to 21st December 2019

All reviewed papers will be published in UGC approved journals and selected papers will be published in Springer, IETE Journal, Institution of Engineers(India), Scopus, Web of Science

New Horizon College of Engineering
Outer Ring Road, Marathahalli,
Bangalore – 560103

www.newhorizonindia.edu

Knowledge Partners



Industry Partners



CHIEF PATRON

Dr.Mohan Manghnani, Chairman, NHEI

PATRONS

Dr.Karisiddappa, Vice Chancellor, VTU, Belagavi

Dr.Anand Deshpande, Registrar, VTU, Belagavi

Dr.Manjunatha, Principal, NHCE

INTERNATIONAL ADVISORY COMMITTEE

John L. Volakis, Dean, FIU's College of Engineering, Florida International University, USA

Dr.Shaun Whitehead, Creationeering/Scoutek Ltd (UK)

Dr.Yuri Salamatov, Director, Institute of Innovative Design (IID), Siberian Federal University, Krasnoyarsk, Russia

Mr.Mathieu J Weiss, Managing Director, Liaison Office India, CNES, France

Dr.Meir Ariel, Director, The Herzliya Science Centre, Israel

Brig.Gen.(Res.)Abraham (Avi) Bachar, Founder & CEO IsraTeam 98 LTD, Israel

Prof.Wen-Mei Hwu, IBM-Illinois Center for Cognitive Computing Systems Research, University of Illinois Urbana-Champaign, IL, USA

Dr.Thomas K. Truong, Program Director, Cognitive Technologies & Performance @IBM, USA

Prof.Vladimir D. Bogatyrev, D.Sc., Vice Rector for Education and International Affairs of Samara University, Director of the Institute of Economics and Management, Russia

Dr.Sharan Asundi, AP, Tuskegee University and Visiting Researcher at NASA, USA

Mr.Milind Pimprikar, CANEUS Founder and Chairman, Canada

Ms.Rei Kawashima, Secretary General, UNISEC Global, Japan

Dr.Taiwo Raphael Tejumola, Resident Faculty in Space Applications, International Space Applications, Strasbourg, France

Prof.Santoni Fabio, Roman University, Italy

Romeo Kienzler, Chief Data Scientist, DeepLearning/AI Engineer, IBM Watson IoT, Switzerland

Dr.Tom Murad, Country-lead for Canada, Siemens Canada

Dr.Meyya Meyyappan, Chief Scientist for Exploration Technology, Center for Nanotechnology, NASA Ames Research Center, Moffett Field, CA 94035, USA

Prof.Sundaraja Sitharama Iyengar, Distinguished University Professor, Ryder Professor and Director of Computer Science at Florida International University, Miami, Florida, USA

Prof.Muthukumar Packirisamy, Professor, Mechanical, Industrial and Aerospace Engineering, Concordia Institute of Aerospace Design & Innovation, Concordia University, Canada

Dr.Javeed Ahmed Khan, Professor, Electrical Engineer and Operational Technology Consultant, Scarborough, Ontario, Canada

NATIONAL ADVISORY COMMITTEE

Padmashri.Prof.R.M.Vasagam, Former Project Director, "APPLE" India's First Geo-stationary Communication Satellite, Former VC, Anna University and Dr.MGR University

Padmashri.& Padmabhushan. Dr.B.N.Suresh, Former Director, Vikram Sarabhai Space Centre, (VSSC), Former Director, Indian Institute of Space Science and Technology and Vikram Sarabhai Distinguished Professor, ISRO HQ.

Padmashri.Dr.Mylswamy Annadurai, Director, ISRO Satellite Centre (ISAC)

Padmashri.Y.S.Rajan, Honorary Distinguished Professor in Indian Space Research Organisation, Former Vice-Chancellor in Punjab Technical University (PTU)

Padmashri.Dr.Dataguru, Former Professor & HoD, Aerospace Department, Indian Institute of Science, Bangalore

Prof.Sandeep Sancheti, President, Association of Indian Universities (AIU), New Delhi and Vice Chancellor of SRM Institute of Science and Technology (SRMIST), Chennai

Prof.J.Ramkumar, Associate Dean, Imagineering Lab/4i Laboratory, Indian Institute of Technology Kanpur (IIT Kanpur)

Ganesan Narayanasamy, OpenPOWER Leader in Education and Research, IBM Systems

Dr.L.V.Muralikrishna Reddy, President, Indian Technology Congress Association and University Space Engineering Consortium-India

Dr.R.Venkatesan, Head, Ocean Observation Systems, National Institute of Ocean Technology

Shri.T.M.Gunaraja, President, The Institution of Engineers (India)

Dr.Wooday P Krishna, President, Indian Institution of Production Engineers

Dr.J.W.Bakal, President, IETE

Prof.H.S.Bhatia, Chairman, IETE

INVITED KEYNOTE SPEAKERS



John L. Volakis

Florida International University
USA



Dr. Shaun Whitehead

Creationeering/Scoutek Ltd
UK



Dr.Meir Ariel

Director, Herzliya Science Center
Israel



Gen.(Ret.) Prof Chaim Eshed

Chairman, Space Committee Israel
National Council for R & D
Israel



Ms.Rei Kawashima

Secretary General, UNISEC-Global
Japan



Prof. Santoni Fabio

Roman University
Italy



Romeo Kienzler

Chief Data Scientist
IBM Watson IoT
Switzerland



Dr.Meyya Meyyappan

Chief Scientist for Exploration Technology
NASA Ames Research Center
USA



Prof.Sundaraja Sitharama Iyengar

Florida International University
USA



Dr. Javeed Ahmed Khan

Electrical Engineer and Operational Technology
Consultant
Scarborough, Canada

INSTITUTION ADVISORY COMMITTEE

Mrs.Malathi Madhusudhan, Sr.Exec.Director, Finance, NHEI

Mr.Surya Prakash, Registrar, NHEI

Prof.Gurucharan Singh, Exec.Director, T&P, NHEI

Dr.Girija Srinivasalu, Director, QASDC, NHEI

INSTITUTION TECHNICAL COMMITTEE

Dr.Prashanth, CSR, Prof & Dean-Academics, NHCE

Dr. M.S Ganesha Prasad, Prof & Dean-Mechanical, NHCE

Dr.K.Gopalakrishnan, Prof & Dean-R&D, NHCE

CONFERENCE ORGANIZING SECRETARY

Dr.B.Rajalakshmi, Prof & Head-CSE, NHCE

STEERING COMMITTEE

Dr.Sanjeev Sharma, Prof & Head-ECE, NHCE

Dr.R.J.Anandhi, Prof & Head-ISE, NHCE

Dr.Anitha Rai, Head-Library, NHCE

Dr.Srinivasa.G, Prof & Head-Mathematics, NHCE

INSTITUTION ORGANIZING COMMITTEE

Dr.Sridhar Kurse, Prof & Head-AU, NHCE

Dr.H.Anandha Vardhan, Prof & Head-BT, NHCE

Dr.Niranjan, Prof & Head-CE, NHCE

Dr.Ramkumar, Prof & Head-EEE, NHCE

Dr.Sheelan Mishra, Prof & Head-MBA, NHCE

Dr.Asha, Prof & Head-MCA, NHCE

Dr.Revathi, Prof & Head-Physics, NHCE

Dr.Anusuya Devi, Prof & Head-Chemistry, NHCE

Dr.Sowmya, Prof & Head-Life skills, NHCE

Mr.Ranjan Manish, Head-IIC, NHCE

Ms.Manjula, Head-HR, NHEI

Ms.Deepa, Head-Marketing, NHEI

Ms.Aruna, Head-Admissions, NHCE

Dr.S.Sujitha, Assoc.Prof-EEE, NHCE

About College

New Horizon College of Engineering is an Autonomous college affiliated to Visvesvaraya Technological University(VTU), approved by the All India Council for Technical Education(AICTE) & University Grants Commission(UGC). It is accredited by NAAC with 'A' grade & National Board of Accreditation(NBA). It is one of the top engineering colleges in India as per NIRF rankings – 2018 and an ISO 9001:2008 certified institution. New Horizon College of Engineering is located in the heart of the IT capital of India, Bangalore. The college campus is situated in the IT corridor of Bangalore surrounded by MNCs and IT giants such as Intel, Accenture, Capgemini, ARM,Symphony, Wipro, Nokia, JP Morgan and Cisco to name a few.

NHCE has a scenic and serene campus that provides an environment which is conducive for personal and intellectual growth. The infrastructure acts as a facilitator for the effective delivery of the curriculum. NHCE boasts of state-of-the-art facilities for its students. The students are given utmost encouragement in their areas of interest by providing hi-tech facilities backed by faculty support. The institute places highest priority on innovative programs of instructions that include both traditional class room theory and professional skills training. There is a strong impetus on overall personality development of the students with emphasis on soft skills. Students are supported through mentoring and counseling systems. The management offers scholarships to meritorious students. At NHCE, from the moment a student walks into the campus, he/she is well guided to know his/her strengths and choose an area of functional specialization. This enables students to concentrate their efforts and energies to gain the competitive edge. NHCE has an unique distinction of achieving 100% admissions in all its courses year after year.

NHCE has Centre of Excellence with reputed industries like Adobe,HPE, Vmware, Schnieder Electric, SAP, Quest Global, CISCO.

CONFERENCE PREAMBLE

The International Conference on Innovative Research in Engineering, Management and Sciences (ICIREMS) provides a common forum for deliberations, sharing of recent trends, advancements and research in the areas of Science, Technology, Engineering and Management. This multi-disciplinary conference will be a very good platform for academia, researchers, industry practitioners and technologists from all over the world to discuss and present recent advances and research outcomes in their respective fields. We are in the process of finalising the eminent persons.

ICIREMS aims to provide an environment where the authors and participants can establish research relations and collaborations with various eminent academicians, research fellows, scientists from India and abroad.

CALL FOR PAPERS (Best paper will be rewarded)

The ICIREMS-2019 invites full length original research contributions not submitted to any other journal/conferences. We invite technical papers on, but not limited to, following domains.

<p>CSE/ISE/MCA Machine Intelligence</p> <ul style="list-style-type: none"> • Big Data, Data Sciences and Cloud Computing • Machine Vision, Informatics and Intelligent Systems • Network Communications, Cyber Security and Information Security • High Performance Computing, Human Computer Interaction • Advanced DBMS, Advanced Software Engineering • Network Communication, IoT • Interdisciplinary Application 	<p>ECE/EEE Emerging Technologies for Smarter and Intelligent world</p> <ul style="list-style-type: none"> • Electric Vehicle (EV) Integration • Energy Resources for Portable Electronics and Transportation Systems • Industrial and Building Automation Systems • Power Management for Smart Home, Smart Buildings, Smart Cities • Renewable Power System Analysis • Embedded/VLSI Systems for Electrical / Electronics Application
---	--

<p>MECH/AUTO Modern Technologies & Automation</p> <ul style="list-style-type: none"> • Advanced Safety Technologies • Assisted and Automated driving • Hybrid & Electric Vehicle • Engine & transmission technology • Computational fluid dynamics / CFX • Advances in Nano Technology and Surface Engineering • Advanced 3D Modelling Techniques and Simulation • Advanced Robotics & Automation • Digital Manufacturing & Industry 4.0 	<ul style="list-style-type: none"> • Advanced polymers and polymer composites • Analytical and spectroscopic studies • Biomass conversion • Pure mathematics Algebra Calculus and Analysis Geometry and topology Graph Theory and Combinatorics • Applied mathematics Dynamical systems and differential equations Probability and statistics Mathematical Modelling Fluid Dynamics
<p>CIVIL Green Technologies</p> <ul style="list-style-type: none"> • Green Building Technologies • Smart Materials and Composite construction • Structural Health Monitoring • Construction materials/Technologies for affordable housing • Remote Sensing and GIS Application • Computational Fluid Dynamics • Tunnelling and underground constructions 	<p>Contemporary Innovations in Libraries</p> <ul style="list-style-type: none"> • Best practices for Libraries • Virtual Libraries and Ontology • e-Learning Library Services Marketing • Social Intelligence & Cultural Network Tools • User satisfaction in the Digital Age • Open Source Software for Social Usage • Mobile Technology in Library Services • Cloud Computing Services for Libraries
<p>MBA Innovations in Business Management</p> <ul style="list-style-type: none"> • Blending business with technology for competitive advantage • Digitalization of business-Challenges and opportunities • Business sustainability • Agile management • Green management • Social media-Its impact and influences • Work place diversity • Compliance complexities • Sustainability challenges in turbulent environments • Design thinking 	<p>Biosciences</p> <ul style="list-style-type: none"> • Plant Biotechnology • Microbial Biotechnology • Nanotechnology • Bioinformatics • Renewable Energy resources • Molecular Biology • Protein Chemistry • Pharmaceutical Biotechnology
<p>Sciences & Humanities Sciences</p> <ul style="list-style-type: none"> • Materials for energy storage and conversion • Materials for sensing applications • Nanomaterials - synthesis and characterisations • Dielectric and magnetic studies of materials • Forensic applications • Materials for environmental remediation 	<p>Humanities</p> <ul style="list-style-type: none"> • Industry Institute Interaction for better employability • Developing Creativity, Critical thinking and Decision making through Design Thinking • The integration of Life Skills in Common Curriculum for Engineering and Management students • Communication and Soft Skills for a better career • Effectiveness of English Language Lab for better communication • 21st Century Learning Skills • Mastering soft skills for workplace success • Life Skills leads to empowerment and employability

SUBMISSION GUIDELINES

- All papers should be original, unpublished, not submitted to any other journal/conferences, in pdf format as per the guide lines and IEEE format given in the conference website www.newhorizonindia.edu/nhengineering/icirems2019
- Please mail your original manuscript mentioning your name, contact details and e-mail id to icirems_2019@newhorizonindia.edu
- All submitted papers will be checked for plagiarism and papers which are not satisfying the criteria will be summarily rejected
- Notification of acceptance will be through email
- All reviewed papers will be published in UGC approved journals and selected papers will be published in Springer, IETE Journal, Institution of Engineers(India), Scopus, Web of Science
- Registration will be confirmed only after the payment of registration fee and at least one author must be present for the conference. Registration form is available in the conference website
- Registration fee includes publication charges, conference kit, lunch and banquet

IMPORTANT DATES

Full paper submission deadline	31st Aug 2019
Notification of Acceptance	4th Nov 2019
Camera-ready paper deadline	15th Nov 2019
Registration Starts	20th Nov 2019
Registration Closes	30th Nov 2019
Conference Date	19-21st Dec 2019

DETAILS OF REGISTRATION

AUTHORS	REGISTRATION FEE
Attendee	Rs. 3000/-
Academia/Faculty	Rs. 6000/-
Industry	Rs. 7000/-
Foreign Delegates	200 USD (Skype Presentation Permitted)

MODE OF PAYMENT

Registration fee to be paid through NEFT as per the details given below:

Bank Name: Indian Bank

Branch : New Horizon College of Engineering, Bangalore, India

Account Number: 484700078

Account Type: Savings Account

IFSC Code : IDIB000N112

ACCOMMODATION

Accommodation will be provided on prior request @Rs.500/- per day. For accommodation contact:

Mr. Surya Prakash(Registrar)- 9731922177

Ms. Padma- 9008793090

How to Reach

FROM CITY RAILWAY STATION / CITY BUS STAND(K.S.R.T.C) – Walk to Majestic BMTC Bus stand

FROM MAJESTIC BMTC BUS STAND 15km to NHCE

Platform No : 17 Bus No : 333, 335 A, 334, 323, 327 G

Get down near Marthahalli Bridge. From Marthahalli Bridge to NHCE is nearly 3 Kms. Get into any 500 series bus going towards Banashankari/Silkboard and get down at New Horizon College

FROM KR PURAM (Nearest Railway station) 10km to NHCE

Get into any 500 series bus going towards Silk Board and get down at New Horizon College

KEMPEGOWDA INTERNATIONAL AIRPORT (Nearest Airport) 47km to NHCE

Get a taxi or bus No.: KIA8 and get down at New Horizon College

For Details Contact

- **Conference Organizing Secretary**

Dr.B Rajalakshmi - 9841711347
icirems_2019@newhorizonindia.edu

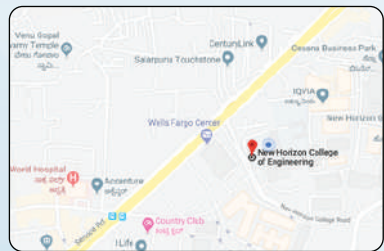
- **Steering Committee**

Dr.Sanjeev Sharma - 7829176479

Dr.R.J. Anandhi - 9845705705

Dr.Anitha Rai - 9731034730

Dr.Srinivasa.G - 9449817583



Places to visit in and around Bangalore

Lalbagh Botanical Gardens, a well-known botanical garden with a spread of 240 acres. The garden features rare plants of French, Persian and Afghani origin.

Bannerghatta National Park, has a huge variety of fauna, making it one of the most enjoyable tourist attractions in the city. Lions, Tigers, Crocodiles etc can be spotted.

Cubbon Park, is a major sightseeing attraction, with 300 acres of green foliage. Having been laid down by Lord Cubbon, it is an ideal place for nature lovers and those seeking a calm atmosphere.

Bangalore Palace, an epitome of great architecture and beauty. The Majestic Bangalore Palace preserves in it the spice of old regal opulence.

Mysuru, 139km from Bangalore. The erstwhile capital of the Mysore Maharajas still retains its old world charm with its palaces, heritage buildings, traditions and temples.

Chikmagalur, 200km from Bangalore. A pristine location sprawling in the extensive Western Ghats, offers several tourist sights like Mullayanagiri, Hebbe Falls, Baba Budangiri, Kemmangundi, Kudremukh National Park, Kalhatti Falls, Bhadra Wildlife Sanctuary, etc.

Coorg, 260km from Bangalore. Gifted with nature's bounty, you will see lush green landscapes, coffee plantations. The attractions include Abbey Falls, Kumara Parvatha trek, Tadiandamol, etc.

Weather in Bangalore in December

December is one of the best months of the year to visit Bangalore with temperatures between 12° to 28°. Early morning fog can be expected.