**Bansilal Ramnath Agarwal Charitable Trust's** 

# Vishwakarma Institute of Information Technology



# CALL FOR PAPERS

Dear Researcher / Author,

It is our immense pleasure to invite prospective authors to contribute and help shape the conference through submissions of original / unpublished research paper(s) in

4<sup>th</sup> International Conference on

# "Recent Trends in Engineering and Technology"- VISHWACON 2021"

organized by

Vishwakarma Institute of Information Technology (VIIT), Pune.

#### **About the Conference: VISHWACON 2021**

VIIT is taking initiative for networking researchers by organizing seminars, focused short-term training programs and conferences every year. Research wing, VIIT organizes a conference every year to collaborate with researchers and to provide the opportunity to present their valuable work. It also provides a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of engineering and technology.

The pandemic of COVID 19 is affecting the lives, setting new sets of challenges and opportunities, too by setting a new-normal of meetings, conferences and lifestyle demands. Considering the challenges, we encourage authors to participate in online mode, which shall provide an opportunity to meet on virtual platforms and to accommodate more and more. Conference is organised in hybrid mode, where authors can present the papers in conference by physically attending it or one can join in virtual mode.

#### **Important Dates**

Paper Submission Due: 10<sup>th</sup> Oct. 2021 Notification for Acceptance: 15<sup>th</sup> Nov. 2021 Registration deadline: 22<sup>th</sup> Nov. 2021 Date of Conference: 27<sup>th</sup> & 28<sup>th</sup> Nov. 2021 For more details about the conference, please visit : Conference website : https://vishwacon.in/

Paper submission link:
Easychair
For any query, Please drop an email at:
vishwacon@viit.ac.in

# "Recent Trends in Engineering and Technology"- VISHWACON 2021"

#### **About VIIT**

Vishwakarma Institute of Information Technology (VIIT) was established in 2002 by Bansilal Ramnath Agarwal Charitable Trust (BRACT), Pune, Maharashtra, with the vision of providing excellence in technical education. Mission to make competent engineers with the spirit of professionalism and responsible citizenship by imparting knowledge and technical skills of the highest standards and to prepare them to respond to the current and future needs of the industry, higher studies as well as research.

VIIT is a self-financed Autonomous Institute, affiliated to Savitribai Phule Pune University (SPPU), Pune. Institute has undergraduate, Post Graduate and Doctoral programs in Engineering with more than 3500 students on campus including 100+ post graduate and research students. It is recognized and approved by AICTE, New Delhi and the Government of Maharashtra. SPPU has conferred Academic Autonomy to VIIT from Academic Year 2017-18 along with autonomous research center of SPPU, Pune.

During the last nineteen years, VIIT has developed into the most sought-after institute, recognized amongst few top ranking engineering colleges in Maharashtra and India. It is an ISO certified institute since 2006 and holds ISO 9001:2015 certification. Detailed info about academic programs, faculty, research facilities and amenities is available at www.viit.ac.in.

#### **Highlights**

- VIIT has been accredited by NAAC and has received 'A' Grade with a CGPA of 3.14 in the year 2016.
- © All UG Programs are accredited by NBA. Few are re-accredited.
- Placed in Rank Band of 251-300 under the India Rankings 2020 by NIRF.
- © Received "Platinum" rating in 2020 and Gold" rating in AICTE-CII Survey of Industr Linked Technical Institutes.
- ⑤ In the GHRDC-CSR Survey 2016 25<sup>th</sup> and 2019 07<sup>th</sup> rank amongst the Outstanding Engineering Colleges of Excellence the State of Maharashtra.
- © Ranked 67<sup>th</sup> in private Engineering Institute and has 81<sup>st</sup> overall ranking in India in Times Best Engg. Institute Survey 2019,
- © Received AAA+ rating by Careers 360.
- © Ranked 6th in the state and 14<sup>th</sup> in Country by CSR Review.

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#### **Publication of Accepted Papers:**

Accepted and presented papers will be considered for publication in Scopus / web of science journals identified by organizers. Dependent on the area of paper and content, experts will recommend to a suitable journal for publication. Papers from Core engineering is to be published in Apple Academic Press - CRC press book 'Smart innovations and Technological Advancements in Civil and Mechanical Engineering', a Taylor-Francis Group publication. Papers from Computer and circuit domains is to be published in CRC press book 'Artificial Intelligence in Information and Communication Technologies, Healthcare and Education: A Roadmap Ahead', These will be special issues of the book series from AAP-CRC. Both of these books are scopus indexed.

Organising Committee is happy to discuss the prospects of publications with authors to maintain the utmost clarity and transparency. Conference publish an abstract book as a collection of ideas.

#### **Guidelines for Authors:**

Please ensure your submission meets the conference's strict guidelines for accepting scholarly papers. Downloadable versions of the checklist for full-Text Papers along with templates are available on the conference website.

#### The conference invites the papers in the following domains /tracks but not limited to:

#### Track I

Convergence of AI, IoT and Communication Technologies for Futuristic Innovations Internet of Things: Way forward ,Smart Cities: IoT and AI usage and resource optimization, Cyber Security, Cyber Physical System, IoT Cloud Security, Network Artificial Intelligence, Computer Vision & Soft computing, Sentiment Analysis, Brain Machine Interface, Natural Language Processing and applications, Cloud Computing, Roof Computing.

# Advances in Sensor and Chip design, Controls, Communication and Signal Processing

#### Track II

Wireless and Mobile Communication: Infrastructural challenges, MIMO antennas-Designs and Development, Micro-strip and wideband Antenna Design & Fabrication, 4G/5G Network Evolutions, Secure Protocols, Cryptography, Application of IoT and Deep Learning in Wireless communication, 2D, 3D Signal Processing, System on Chip, Network on Chip, Robotics & Automation: Towards networked operations.

#### Artificial Intelligence in Healthcare and Agriculture, Education, Future Mobility

#### Track III

Non-invasive sensing and Data collection techniques, Disease diagnosis using AI, Smart irrigations using Sensors, IoT and AI, Driverless Cars: Current trends and future, Driving Range: AI based predictors, Medical image analysis and classification, Intelligent Transportation.

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#### Track IV

#### Data Science and Analysis for Business and Enterprise

Data Science: Synthetic Datasets, Data Analytics: Emerging Areas and Applications, Pattern Recognition: Learning from Data, Big Data Analytics & Data Mining, Block Chain Technologies and Hashing, replication, distributed environment, Data Encryption, steganography and secured transmission, Deep learning for Data annotation.

# Track V

#### Materials and Manufacturing Engineering, Construction Technology

Development of novel materials and its characterization techniques, latest trends in manufacturing methods, developments in advanced composite materials applications in manufacturing, aviation, defense and construction engineering, challenges in the manufacturing and machinability, advanced and cost-effective manufacturing processes and applications, concrete technology, construction technology, geotechnical engineering, transportation engineering.

#### Design Engineering, Automation and Electric Vehicle Technology

Advancement in the area of design and automation, Finite element modeling, computer aided engineering and analysis, fracture mechanics, vibration and sustainability in engineering design, multi-disciplinary approach for innovative product design, ergonomics and usability engineering, Engineering applications with new emerging technologies like Artificial Intelligence (AI) and Machine Learning (ML) for organization, planning, and prediction. Future mobility, design challenges in EV and HEV, lightweight materials, alternate energy system, transmission design and hybridization, advances energy systems and management.

## Track VI

#### Thermal and Fluid Engineering

#### Track VII

Advances in the fields of thermal and fluid engineering, thermal management, heat transfer and fluid flow and micro and nano-scale fluid flow, recent trends in internal combustion engine, refrigeration and air conditioning.

#### Structural Engineering

Track VIII

State-of-the-art and state-of-the-practice in structural engineering, art and science of structural modelling and design, computational and experimental simulation techniques, new structural systems pioneer methods for maintenance, rehabilitation and monitoring of existing structures, investigation of structural behaviour, structural dynamics, earthquake engineering, smart structures, structure-fluid-soil interaction, data driven techniques, modular construction practices, performance based design, structural reliability, structural health monitoring, digital design methods.

#### **Environmental and Water Resources Engineering**

Advancement in the area of water resources and environmental engineering, Water Resources planning and Management, water resources systems, hydrology, groundwater hydrology, climate change and it's impacts on hydrology and water resources, water conservation systems, watershed hydrology, air and water pollution and its control, Advanced waste water systems, Industrial waste water managements, innovative modelling aspect of water resources and environmental engineering.

## Track IX