



# 4th INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE AND SPEECH TECHNOLOGY



9th - 10th December, 2022

[www.aistconference.com](http://www.aistconference.com)



# AIST 2022

All accepted and presented papers of the conference by duly registered authors will be submitted to IEEE Xplore for Publication.

After the grand success of three versions of International Conference on Artificial Intelligence and Speech Technology (AIST2019, AIST2020 and AIST2021), Indira Gandhi Delhi Technical University for Women, Delhi is all set to host its fourth version i.e. 4th International Conference on Artificial Intelligence and Speech Technology (AIST2022) on 9-10th December, 2022 at IGDTUW Campus, Delhi. Last three Conferences witnessed a number of Expert Researchers, Academicians and Industry Practitioners in AI and Speech Domain from premier Institutions in India and abroad including Japan, Australia, France, Germany, Hungary, Czech Republic, Myanmar, Uzbekistan, Austria, Vietnam and others. Thanks to Artificial Intelligence (AI), Machine Learning(ML), Natural Language Processing (NLP) and Speech Technology, which are enabling the development of Virtual Assistants in user-facing applications and working in the background to automate workflows. AI driven solutions like speech recognition systems are more accurate and efficient and makes it easier to identify and understand the components of natural language. These models can be used for voice recognition services, making an NLP service well-rounded and more efficient for various domain including medical (e.g. speech impaired people), forensics and academics and others.

## IMPORTANT DATES:

PAPER SUBMISSION : ~~16th AUGUST, 2022~~

**\*Date Extended\* - 10th OCTOBER, 2022**

NOTIFICATIONS: 25TH OCT, 2022

CAMERA-READY VERSION: 31ST OCT, 2022

CONFERENCE DATES: 9TH-10TH DEC, 2022

## TECHNICALLY SUPPORTED BY:



## CALL FOR PAPERS

PAPERS ARE INVITED IN THE FOLLOWING TRACKS:

**TRACK 1** - MACHINE INTELLIGENCE

**TRACK 2** - COMPUTER VISION AND AI

**TRACK 3** - NLP AND AI

**TRACK 4** - SPOKEN LANGUAGE PROCESSING

**TRACK 5** - SPEECH RECOGNITION

**TRACK 6** - TRENDS AND APPLICATIONS IN SPEECH TECHNOLOGY

## TUTORIAL SESSION

- HANDS-ON SESSIONS BY RENOWNED RESEARCHERS
- TOOLS AND TECHNIQUES FOR SPEECH PROCESSING AND DATABASE DEVELOPMENT
- DEEP LEARNING AND MACHINE LEARNING MODELS FOR NLP AND SPEECH

PAPER SUBMISSION LINK: <https://easychair.org/account/signin?l=OV3LrcMzD0Ik9qqQJ11hpU>

Email ID: [aist2022@igdtuw.ac.in](mailto:aist2022@igdtuw.ac.in)

M :+ 91 98992 02168

## ORGANISING COMMITTEE:



DR. S. NAKAMURA  
NAIST JAPAN  
(HONORARY CHAIR INAUGURAL SPEAKER)



DR. (MRS) AMITA DEV  
VICE CHANCELLOR, IGDTUW,  
(GENERAL CHAIR)



PROF. S. S. AGRAWAL  
DG KIIT, EMERITUS SCIENTIST CSIR  
CHAIRMAN, TECHNICAL COMMITTEE



PROF. ARUN SHARMA  
DEAN EXAMINATION, IGDTUW  
(CONVENER)



PROF. POONAM BANSAL  
AI AND DATA SCIENCES, IGDTUW  
(CO-CONVENER)



# ABOUT IGDTUW

Indira Gandhi Delhi Technical University for Women (IGDTUW) was established by the Govt. NCT of Delhi in May, 2013 vide Delhi Act 09 of 2012, as a non-affiliating University to facilitate and promote studies, research, technology, innovation, incubation and extension work in emerging areas of professional education among women, with focus on engineering, technology, applied sciences, architecture and its allied areas with the objective to achieve excellence in these and related fields.

## KEYNOTE SPEAKERS



**DR. TANJA SHULTZ**  
PROFESSOR  
UNIVERSITY OF BREMEN



**DR. S. NAKAMURA**  
NAIST JAPAN  
(HONORARY  
CHAIR/INAUGURAL SPEAKER)



**DR. MILAN STEHLIK**  
PROFESSOR  
JOHANNES KEPLER UNIVERSITY,  
AUSTRIA



**DR. SYED ZULKARNAIN SYED IDRUS**  
ASSOCIATE PROFESSOR  
UNIVERSITI MALAYSIA PERLIS,  
MALAYSIA

## TRACKS



### MACHINE INTELLIGENCE

- Computational Theories of Learning
- Neuro-informatics
- Cognitive Science
- Supervised /Unsupervised learning
- Convolution Neural Network
- Recurrent Neural Network
- Generative Adverse Network
- Applications of ML and Deep Learning
- Robotics
- Cyber Security
- Internet of Things
- Federated learning: the next generation machine learning for regulated domains- Healthcare, Agriculture and Banking

### SPOKEN LANGUAGE PROCESSING

- Speech-to-Speech Translation
- Spoken Dialogue Systems
- Spoken Language Recognition and Understanding
- Speech and Language Resources - Data Collection, Transcription and Annotation
- Computational Resource Constrained Speech

### SPEECH RECOGNITION-SIGNAL

- PROCESSING, ACOUSTIC MODELLING, LANGUAGE MODELLING
- Speech Analysis, Representation and Models
- Speech Enhancement
- Text to speech synthesis
- Affective Speech Recognition, Interpretation and Synthesis
- Generate Audio fingerprints
- Automated music tags

### TRENDS AND APPLICATIONS IN SPEECH TECHNOLOGY

- Forensic Speech Investigations and Security Systems
- Speaker Recognition in Biometric Systems and Security
- Speech Interface Design and Human Factors Engineering
- Human Computer Interaction
- Assistive Technologies
- Applications of Modelling, Simulation and Verification in Automotive

### Scientific Committee

- Dr. Nemeth Geza, Hungary
- Dr. Barbara Zitova, Czech Republic
- Dr. Chai Wuttiwittachai, Thailand
- Dr. Bin Ma, IIR, Singapore
- Dr. Hsin-Min Wang, IIS, Taiwan
- Dr. Steven Bird, CDU, Australia
- Dr. Ashish Seth, IU, Tashkent
- Dr. Ayu Purwarianti, ITB, Indonesia
- Dr. Marelis Daveli, NWU, S Africa
- Dr. Mariko Kondo, WU, Japan
- Dr. Mirna Adriani, UI, Indonesia
- Dr. Luong Chi Mai, IOIT, Vietnam
- Dr. Pedro Moreno, Google, USA
- Dr. Alexey Karpov, SPIIRAS, Russia
- Dr. S Sakti, NAIST, Japan
- Dr. Sebastian Stüker, KIT, Germany
- Dr. Sin Hoing Chen, NCTU, Taiwan
- Dr. Odette Scharenborg, DUT, NL
- Dr. C Christopher, Univ. of Pennsylvania
- Dr. Li Haizhou, NUIS, Singapore
- Dr. Khalid Choukri, ELDA
- Dr. Milan Stehlik, Johannes Kepler University Linz, Austria
- Dr. Rajkumar Buyya, Australia
- Dr. Igh Tiziana, Ireland
- Dr. Dirk Van Compernelle, Belgium
- Dr. Emmanuel Dupoux, EHES, France
- Dr. Eric Castelli, MICA, Vietnam
- Dr. Etienne Barnard, NWU, S Africa
- Dr. Gerard Bailly, CNRS, France
- Dr. Gilles Adda, CNRS, France
- Dr. Brian Mak, HKUST, China
- Dr. Charl Van Heerden, SPbSU, Russia
- Dr. Chiu Yu Tseng, IL, Taiwan
- Dr. Claudia Soria, ILC-CNR, Italy
- Dr. Tan Tien Ping, USM, Malaysia
- Dr. Tanja Schultz, UB, Germany
- Dr. Thang Vu, US, Germany
- Dr. Xavier Anguera, Spain
- Dr. Yoshinori Sagisaka, Japan
- Dr. Zuraida Mohd Don, UPSI Indonesia
- Dr. Joseph Mariani, CNRS, France
- Dr. Laurent Besacier, LIG, France
- Dr. Lori Lamel, LIMSI, France
- Dr. Nick Campbell, TCD, IR
- Dr. P.C. Ching, Hongkong
- Dr. Hiroya Fujisaki, TU, Japan
- Dr. Gianluca Valentino, Malta
- Dr. Ahmed A. Elngar, B-SU, Egypt
- Dr. Marcin Paprzycki, PAS, Poland
- Dr. Biplob Ray, Australia
- Dr. Gabriella Casalino, UBAM, Italy
- Dr. Burlea Schiopoiu, Romania
- Dr. Syed Hussain, ULAB, Bangladesh
- Dr. Win Pa Pa, UCS Yangon, Myanmar
- Dr. Subhash Bhalla, UA, Japan
- Dr. Mani Madhukar, IBM, India
- Dr. Karunesh Arora, CDAC, India
- Dr. Somnath Chandra, DEITY, India

## CONTACT :

**PROF. ARUN SHARMA**  
**CONVENER**  
**M :+ 91 98992 02168**

PLEASE VISIT [AIST2022.COM](http://AIST2022.COM) FOR MORE UPDATES

