



Indira Gandhi Delhi Technical University for Women
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Kashmere Gate, Delhi-110006

Women Education | Women Enlightenment | Women Empowerment



5th International Conference on Artificial Intelligence and Speech Technology
AIIST 2023

Program Schedule
26th December, 2023
Inauguration Session

Time	Schedule
10:10 AM – 10:15 AM	Kulgeet of the University and Lighting of Lamp
10:15 AM – 10:20 AM	Welcome of Guests
10:20 AM – 10:25 AM	Inaugural Address by Prof. Arun Sharma, Dean Academics Affairs and Organizing Chair, AIIST 2023
10:25 AM – 10:30 AM	Highlights of Technical Program by Dr. S. S. Agrawal, DG KIIT, Emeritus Scientist, CSIR and Technical Program Chair, AIIST 2023
10:30 AM – 10:35 AM	Presidential Keynote Address by Prof. Amita Dev, Hon'ble VC, IGDTUW and General Chair, AIIST2023
10:35 AM – 10:40 AM	Address by Guest of Honor – Dr. Sachin Gulati, Director – Campus Hiring, American Express
10:40 AM – 10:50 AM	Address by Chief Guest – Dr. Ranjana N. , Scientist H and Director, Directorate of Systems and Technology Analysis (DSTA), DRDO
10:50 AM – 10:52 AM	Release of Conference Souvenir
10:52 AM – 10:55 AM	Presentation of Mementoes to the Guest
10:55 AM – 11:00 AM	Vote of Thanks and National Anthem
11:00 AM – 11:45 AM	High Tea
11:45 AM – 12:30 PM	Panel Discussion (American Express) Session Chair: Ms. Karuna Kadian, IGDTUW Co Chair: Ms. Priyamvada Mathur, IGDTUW



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Date: 26th December, 2023

Online Mode Time: 12:00 PM – 12:30 PM Venue: Seminar Hall	Keynote Address 1: The Transformative Power of Artificial Intelligence in Medical Image Analysis	Speaker: Prof. Yudong Zhang School of Computing and Mathematical Sciences, University of Leicester, UK Session Chair: Prof. Ajay Kumar, Thapar University Session Co-Chair: Dr. Ritu Rani, COE – AI, IGDTUW
Offline Mode Time: 12:30 PM -01:45 PM Venue: Conference Hall	Technical Paper Presentation 1: Trends and Applications in Speech Processing	Session Chair: Dr. Karunesh Arora, CDAC Session Co Chair: Ms. Sukhandeep Kaur Shergill, BML Munjal University, Dr. Vijay Kumar Yadav, IGDTUW
Offline Mode Time: 12:30 PM - 01:45 PM Venue: Seminar Hall	Technical Paper Presentation 2: Recent Trends in Speech and NLP	Session Chair: Prof. Girish Nath Jha, JNU Session Co Chair: Dr Goldie Gabrani, MRIU Faridabad/Ms. Bhawna Jain, IGDTUW
Offline Mode Time: 02:15 – 15:00 PM Venue: Seminar Hall	Keynote Address 2: Speech Technology Development in Mizo: learning from machine learning	Speaker: Dr. Priyankoo Sarmah, IIT Guwahati Session Chair: Prof. S.S. Agrawal, DG KIIT, Emeritus Scientist, CSIR, TPC Chair Session Co-Chair: Dr Himanshu Mittal, IGDTUW
Online Mode Time: 02:15 – 03:00 PM Venue: Conference Hall	Keynote Address 3: Quantum Machine Learning	Speaker: Prof. Sardar M. N. Islam (Naz) ISILC, Victoria, University, Melbourne, Australia Session Co-Chair: Prof. A.K. Mohapatra, IGDTUW
Offline Mode (in parallel) Time: 03:00 PM – 03:30 PM Venue: Seminar Hall	Keynote Address 4: Transforming Education through AI	Speaker: Dr. Meena Jha, Central Queensland University, Australia Session Chair: Dr. Ritu Rani, IGDTUW Session Co Chair: Ms. Shreshtha Singh, IGDTUW
Offline Mode Time: 03:30 PM – 05:00 PM Venue: Conference Hall	Technical Paper Presentation 3: Recent Trends in Machine Learning and Deep Learning	Session Chair: Dr. Sunita Garhwal, Thapar University Session Co Chair: Ms. Karuna Kadian, IGDTUW Dr. Garima Jaiswal, Bennett University
Online Mode Time: 15:00 – 04:30 PM Venue: IQAC Cell	Technical Paper Presentation 4: Emerging trends in Speech Processing	Session Chair: Dr. Devendra Kumar, NSUT Session Co Chair: Dr. Deepak Kumar Sharma, IGDTUW

Date: 27th December, 2023

Online Mode Time: 10:00 AM – 10:45 AM Venue: Conference Hall	Keynote Address 5: Smart Application for Community	Speaker: Mohd. Helmy Abd Wahab University Tun Hussein Onn Malaysia Session Chair: Prof. Arun Sharma, IGDTUW Session Co-Chair: Dr. Sanjib Kumar Sahu, IGDTUW
Online Mode Time: 10:45 AM - 12:15 PM Venue: Seminar Hall	Technical Paper Presentation 5: Analysis using Hybrid technologies with Artificial Intelligence	Session Chair: Prof. Savita Gupta, UIET Punjab University, Chandigarh Session Co Chair: Bhawana Narwal, IGDTUW
Online Mode Time: 10:45 AM - 12:15 PM Venue: Conference Hall	Technical Paper Presentation 6: Advances in Computational Linguistics and NLP	Session Chair: Prof. Brijesh Kumar, IGDTUW Session Co Chair: Mr. Rahul Sachdeva, Anveshan Foundation
Online Mode Time: 02:00 – 03:30 PM Venue: Seminar Hall	Technical Paper Presentation 7: Exploring New Horizons in Computer Vision Research	Session Chair: Prof. Shakir Khan, Al Imam University Session Co Chair: Dr. Kamal Kumar, IGDTUW
Online Mode Time: 02:00 – 03:30 PM Venue: Conference Hall	Technical Paper Presentation 8: Applications of Machine Learning and Deep Learning in Healthcare	Session Chair: Prof. A.K. Mohapatra, IGDTUW Session Co Chair: Dr. Gaurav Indra, IGDTUW
Online Mode: 03:30 PM – 04:30 PM	Valedictory Session	



**5th International Conference on Artificial Intelligence and Speech Technology
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**Technical Session: 01
Trends and Applications in Speech Processing
Date: 26th December 2023 (Offline Mode) Time: 12:30 PM - 01:45 PM**

Session Chair: Dr. Karunesh Arora, CDAC

**Session Co Chair: Ms. Sukhandeep Kaur Shergill, BML Munjal University,
Dr. Vijay Kumar Yadav, IGDTUW**

S No	Paper ID	Authors	Paper Title
1	228	Manisha Gupta, Amita Dev and Poonam Bansal	Recent Trends in text to Speech Synthesis in Context with Indian Languages
2	68	Anunya Sharma , Kiran Malik and Poonam Bansal	Speech Emotion Recognition using Convolutional Neural Networks
3	177	Gokul Krishnan, Dhruthi Rao, Anshu Sandur, Ananya Jandhyala, and Pooja Agarwal	A Comprehensive Review of Instructional Tools and Applications for Dyslexic Learners
4	108	Pooja Gambhir, Amita Dev, Poonam Bansal	Text-Independent Voiceprints Identification using Feed- Forward Back-propagation with layered strategies
6	205	Surbhi Bharti, Prerna Jha, Sakshi Sahu,Sheba Alam, and Ashwni Kumar	Voice Stress Analysis using Machine Learning
7	221	Suhani, Amita Dev and Poonam Bansal	A Comprehensive Analysis on Kaldi-Based Speech Recognition for Low Resource Indian Languages
8	173	Nidhi Bhatt, Shobha Bhatt, Geetanjali Garg	Hindi Speech Recognition using Deep Learning: A Review
9	83	Lakshmish Nayak, Bharathi Ramudu, Malay Kumar Nema and Rituraj Kumar	A framework for Information Retrieval using Domain Specific Dictionary: Illustration through enhancing the Intelligence Cycle



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**Technical Session: 02
Recent Trends in Speech and NLP
Date: 26th December 2023 (Offline Mode) Time: 12:30 PM - 01:45 PM**

Session Chair: Session Chair: Prof. Girish Nath Jha, JNU

Session Co Chair: Dr Goldie Gabrani, MRIU Faridabad/Ms. Bhawna Jain, IGDTUW

S No	Paper ID	Authors	Paper Title
1	120	Deepanshi Jalan, Anandita Tuli, Shradha Jain, Ashwani Kumar and Vaishali Kikan	Email Bot- Voice Based Email System for Blind
2	144	Mayank Singhal, Komal, Mohammad Zeeshan, Ishika Saini and Preeti Nagrath	Hate Speech Detection Using Glove and BERT
3	209	R. C. Barik, Tanuj Kumar, Anunay Sinha and Vishwajeet Kumar	A Novel and Intelligent approach for Indian Locale Based Text-to-Speech Model by hybridizing Wave Net and Wave Glow with Mel-Spectrogram Analysis
4	216	Khushi Anand, Bhawna Jain, Ananya Verma, Anushka Gupta, Niharika Chhabra	A Comparative Analysis of Deep Learning Architecture for Accurate Gender Classification using Vocal Data
5	48	Apoorva Tiwari, Karuna Kadian, Nikita Garg, Sukhandeep Kaur, and Vimal Dwivedi	Scaling Language Boundaries: A Comparative Analysis of Multilingual Question-Answering Capabilities in Large Language Models
6	199	Sapna Yadav, Syed Bilal Abbas Rizvi and Syed Afzal Murtaza Rizvi	A Comprehensive Approach to AI-Enabled Diagnosis of Lung Diseases: Utilizing Pretrained Models for Fibrosis, Tuberculosis, and Covid-19 Detection
7	193	Ankit Kumar, Richa Sharma, and Punam Bedi	Enhancing Named Entity Recognition with DistilBERT and Attention Ensemble Fusion
8	125	Abdul Moid and Narendra Sharma	Investigation on Existing Blockchain based Architecture, AI/ML driven for Boosting IoT Security & Privacy
9	260	Pooja Bhati	A Comprehensive Review on Impact of Computer Vision in Healthcare Domain
10	49	Ankita Chopra, Madan Lal Saini	Neural Network Based Employability Index for IT Graduates



**5th International Conference on Artificial Intelligence and Speech Technology
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Technical Session: 03

Recent Trends in Machine Learning and Deep Learning

Date: 26th December 2023 (Offline Mode) Time: 03:30 PM – 05:00 PM

Session Chair: Dr. Sunita Garhwal, Thapar University

Session Co Chair: Ms. Karuna Kadian, IGDTUW/ Dr. Garima Jaiswal, Benett University

S No	Paper ID	Author	Paper Title
1	76	Tanya Kumari, Ritika Kumari and Poonam Bansal	Diagnosis of Alzheimer Disease using Machine Learning Algorithms
2	62	Astha Sharma and Ashwni Kumar	Efficient Detection and Multi-Level Classification of Tomato Plant Leaves using fused deep and hand-crafted features and LSTM-ANFIS
3	222	Niranjana Sowpari, Poonam Bansal, and Nandini Sethi	Comparative Analysis Of Deep Learning Models For Text Summarization On Hindi Corpus
4	198	Surbhi Bharti, Divya Verma, Anamika Kumari and Ashwni Kumar	Analysing Social Media Data for emotion detection and sentiment analysis
5	200	Surbhi Bharti, Medha Arora, and Ashwni Kumar	Campus Exploration: Figma-Driven UI Design for a Campus Tour App
6	206	M Deekshitha Reddy, Geetika Vadali, Ritu Rani, Arun Sharma, and Amita Dev	Predicting Optimal Startup Exit Strategies with Ensemble Learning for Venture Capitalists
7	33	Akash Shah, Sapna Varshney and Monica Mehrotra	GRUBBD-SM: Gated Recurrent Unit based Bot Detection on Social Media
8	143	Saumya Mehra and Bhawna Jain	Closing the Data Divide in COVID-19 X-ray Datasets: Advancing Diagnosis through Stable Diffusion-based Synthetic Image Generation
9	190	Kajal Tyagi, Anil Ahlawat and Himanshi Chaudhary	Machine Learning in IoT: An In-depth Dataset Analysis based on Attack Detection
10	04	Snehal Moghe and Dr. Harsh Pratap Singh	Machine Learning Prediction for Knee Condition: Osteoarthritis and TKA, using Image Processing Among Medical Patients



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Technical Session: 04
Emerging trends in Speech Processing
Date: 26th December 2023 (Online Mode) Time: 03:00 PM - 04:30 PM

Session Chair: Dr. Devendra Kumar, NSUT

Session Co Chair: Dr. Deepak Kumar Sharma, IGDTUW

S No	Paper ID	Author	Paper Title
1	63	A.S. Sri Saila, A.T. Venkata Subramani, M.D. Harsha Prada, and G. Madhu Priya	Deep Learning Based Multilingual Voice Recognition System and Analytics for Organization Surveys
2	82	Gitesh Kambli, Jay Oza, and Amit Maity	MelSpectroNet: Enhancing Voice Authentication Security with AI-based Siamese Model and Noise Reduction for Seamless User Experience
3	183	Puneet Mittal, Sukhwinder Sharma and Khyati Marwah	Analysis of Acoustic Features for Gender Identification using Punjabi Speech Dataset
4	134	Shivani Trivedi, Sugandh Rastogi, Sneha Agrawal, and Ravish Sharma	Empowering Hate Speech Detection: A Comparative Exploration of Deep Learning Models
5	73	Pavel Posokhov, Stepan Skrylnikov, Olesia Makhnytina and Yuri Matveev	Hybrid Approach to The Personification of Dialog Agents
6	166	Sandip Jana , Joyanta Basu ,Tapan Kumar Basu and Amiya Karmakar	Santali Vowel Recognition: An Under-Resourced Tribal Language
7	195	Jesin James, Balamurali B. T., Binu Abeysinghe, and Junchen Liu	Explaining Spectrograms in Machine Learning: A Study on Neural Networks for Speech Classification
8	250	Rizwana Kallooravi Thandil, Mohamed Basheer K.P and V.K Muneer	Enhancing Emotion Classification in Malayalam Accented Speech: An In-Depth Clustering Approach



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Technical Session: 05

Analysis using Hybrid technologies with Artificial Intelligence

Date: 27th December 2023 (Online Mode) Time: 10:45 PM - 12:15 PM

Session Chair: Prof. Savita Gupta, UIET Punjab University, Chandigarh

Session Co Chair: Dr. Bhawana Narwal, IGDТУW

S No	Paper ID	Author	Paper Title
1	135	Shivani Trivedi, Ankit Yadav, Suraj Kumar Gupta, and Shivam Gupta	FarmScan: Smart Rotten Fruit and Vegetable Detector
2	28	Ms. Prachi Sasankar and Dr. Gopal Sakarkar	Fault Predictions based on base learnings and mean weighted score using machine learning techniques
3	53	Mr. Omprakash A. Jaisinghani, Dr. P. L Ramteke Department and Mr. Bharat S. Dhak	Ensuring Trustworthy Elections using IoT-Enabled Blockchain EVM Voting Mechanism with Aadhaar Card-Based Face Verification
4	197	Panimalar Kathirolu, Vijayalakshmi.V, Piyush Gopal, Sivananda Panda	Investigation of satellite data for monitoring air quality over remote sensing technology
5	17	Adria Binte Habib, Faisal Bin Ashraf Muhammad Iqbal Hossain and Golam Rabiul Alam	N-BEATS & Temporal Fusion Transformer based Surface Temperature Prediction and Forecasting for Realizing Global Warming Trends
6	249	Muneer V.K, Mohamed Basheer K.P, Rizwana Kallooravi Thandil and Muhamed Ilyas P	A Hybrid Travel Recommender Model Based on Deep level Autoencoder and Machine learning algorithms
7	35	R.Revathi	A Journey through Multifaceted Data in Machine Learning Predictions on Financial Viability
8	253	Garima Jaiswal, Mala Saraswat , Drishti Rai, Shristi Agarwal	Future-Proofing Careers: The AI Era and the Imperative of Reskilling
9	109	Kesana Vanisri, K Srujan Raju, Bagam Laxmaiah	An Image processing-based Tomato Leaf Disease prediction using Deep CNN
10	133	Shivani Trivedi, Jahanvi Gupta, Himanshu Singh	Machine Learning- Based Estimation of Caloric Expenditure



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Technical Session: 06

Advances in Computational Linguistics and NLP

Date: 27th December 2023 (Online Mode) Time: 10:45 PM - 12:15 PM

Session Chair: Prof. Brijesh Kumar, IGDTUW

Session Co Chair: Mr. Rahul Sachdeva, IGDTUW

S No	Paper ID	Author	Paper Title
1	21	Dhananjay Bhagat, Kalyani Sawarkar, Dewanshu Barde, Rashi Channawar ,Mayur Talmale ,Prathamesh Kale,Rahul Agrawal	Text Scribe: Unveiling New Dimensions in Text Summarization
2	191	Kalpna B. Khandale and C. Namrata Mahender	Context Based Anaphora Resolution of English Discourses using Rule Based Approach
3	58	Arrun Sivasubramanian, Sheel Shah, Akash Narayanaswamy, Rindhya C, and Barathi Ganesh HB	Performing Text Segmentation to Improve OCR on Multi Scene Text
4	212	Kata Venkata Sai Krishna, Goli Abhilash, Devanjali Relan, Kiran Khatter	Optimization of Indian Sign Language Detection using Data Generators
5	210	Dr. Vinisha Sumra, Dr. Naveen Malik, Santosh Kumar	An Inclusive Analysis on Deep Learning hinged Malware Detection Techniques
6	220	Aditi Chauhan, Harsh Vishwakarma, Yashika Kukkar, Abhinav Maheshwari	Advances in Text Summarization Techniques: A Comprehensive Review and Future Prospects
7	167	Shakir Khan, Mohammad Serajuddin, Zafarul Hasan, Syed Ahad Murtaza Alvi, Rashid Ayub, Arun Sharma	Natural Language Generation (NLG) with Reinforcement Learning (RL)
8	169	Nimish Goel, Shushil Paudel, Srushti Jagtap, and Ishan G. S. Kakodkar	Revolutionizing Writing: Personalized Neural Classifier for Handwritten Text
9	18	Deepa. R, Dr. T. Sree Sharmila and Dr. R. Niruban	An Efficient Deep Learning based Seq2Seq Model for Abstractive Text summarization
10	208	Raghuveera T, Akshayalakshmi V K, Nisha B A, Easwarakumar K S	Efficient Real-Time Indian Sign Language Fingerspelling Recognition in Natural Settings using Heuristics
11	98	Nachiket Rathod and Prabhakar Ramteke	Detecting Image-based Fake News with Neural Sleuths



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Technical Session: 07

Exploring New Horizons in Computer Vision Research

Date: 27th December 2023 (Online Mode) Time: 02:00 PM - 03:30 PM

Session Chair: Prof. Shakir Khan, Al Imam University

Session Co Chair: Dr. Kamal Kumar, IGDTUW

S No	Paper ID	Author	Paper Title
1	102	Shashank Pandey, Sakshi Dwivedi, Vijay Bhan Singh, Neetu Verma, and Ranvijay5	Video Summarization using Firefly Algorithm
2	37	V. Manikandan, P. Dinesh, M. Chantilyan, C. Gomathi	Enhancing Mint Plant Disease Detection Accuracy through Deep Reinforcement Learning with YOLO Algorithm
3	229	Rashmi Gandhi, Yash Pasrija, Amisha Chauhan, Ritu Rani	Multiple Object Detection and Tracking Using DeepSORT
4	100	Manisha, Avadhesh Kumar, Dileep Kumar Yadav	Background Subtraction Model with Advance GMM in Dynamic Background
5	108	Pooja Gambhir, Amita Dev, Poonam Bansal	Text Independent voice prints identification using feed forward back propagation with layered strategies
6	180	Divya Taneja, Dr. Shobha Bhatt	Deep Learning-based Speech Recognition Models: A Review
7	225	Subhranshu Behura, Arham Alam, Nishtha Phutela, Atul Mishra, and Goldie Gabrani	Tune into Your Feelings: NLP-Powered Emotion-Driven Music Recommender Systems



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Technical Session: 08

**Applications of Machine Learning and Deep Learning in Healthcare
Date: 27th December 2023 (Online Mode) Time: 02:00 PM - 03:30 PM**

Session Chair: Prof. A.K. Mohapatra, IGDTUW

Session Co Chair: Dr. Gaurav Indra, IGDTUW

S No	Paper ID	Author	Paper Title
1	19	Apeksha Koul, Rajesh K. Bawa, Yogesh Kumar	Tuberculosis Detection and Classification in Chest X-ray Images Using Optimized CNN Architecture
2	188	Soumya Jindal and Meemansa Jindal	i-BMD: AI-based Opportunistic Screening for Osteoporosis on Abdominal CT using Deep Learning
3	09	Laxmi Ahuja	Machine Learning Techniques to Study: Medical and Biomedical Signal Analysis
4	145	Sakshi Shete, Suvarna Udgire, Anuradha Joshi, Shravani Desai, Ronit Murpani	Machine Learning Algorithms for Predicting Cardiac Arrhythmias
5	57	Kanchan A. Khedikar and Dr. Piyush Kumar Pareek	Data Mining Based Heart Disease Prediction using Hybrid Optimization technique of derived features
6	66	Mohit M Rao and Virendra Kumar Shrivastava	Unveiling the Enigma: Sudden Cardiac Arrest among Youth and Uncovering Underlying Causes Using Machine Learning Models
7	72	Himani Agarwal and Shweta Singhal	Using Encoder Models to predict Ratings Using Flipkart Reviews
8	20	Sumathi V P, Geethakarathi A	Performance Evaluation Of Machine Learning Algorithms For Predicting Solar Radiation In Chennai Province
9	202	Vartika Tyagi, Amita Dev and Poonam Bansal	Speech Recognition using Adaptation of Whisper Models