AIJR Abstracts

Abstracts of

1st International Conference on Machine Intelligence and System Sciences

Editors

- Indranath Chatterjee
- Partha Pratim Deb

MISS-2021

1-2 November 2021

Organized by

Techno College of Engineering, Agartala, Tripura, India
&
Tongmyong University, Busan, South Korea

2022

MISS-2021
1-2 November
2021

Indranath Chatterjee
Partha Pratim Deb
(Editors)

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1st-2nd November 2021

Editors

Prof (Dr.) Indranath Chatterjee
Professor,
Department of Computer Engineering,
Tongmyong University, Busan, South Korea.

Prof. Partha Pratim Deb
Head,
Computer Science and Engineering Dept.,
Techno College of Engineering Agartala, Tripura, India

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- Techno College of Engineering Agartala, Maheshkhala, Tripura, affiliated to Tripura University, Approved by AICTE, Govt. of India
- Tongmyong University, Busan, South Korea

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MISS-2021
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2021

Table of Contents

Disclaimer i

About the Conference ix

Message from Principal x

Message from Conveners xi

About the Editors xii

Program Committee xiii

Keynote Speakers xv

Acknowledgement xvi

Machine Learning Algorithms to Detect Heart Diseases
Avishek Sharma, Pranta Sutradhar, Parijata Majumdar 1

Enhanced Yolo-V3 Deep Learning Algorithm for Real-time Object Detection – An Assistive Model for Visually Challenge People
S. Kiruthika devi and Subalalitha C. N 2

Visual Object Tracking in Virtual Environmental Simulation Platform Using Deep Reinforcement Learning Technique
Khurshedjon Farkhodov, Suk-Hwan Lee, Jin-Hyeok Park, Ki-Ryong Kwon 3

Facial Emotion Recognition and Detection in Python Using Deep Learning
Anamika Das, Sankha Subhra Debnath 4

COVID Detection Using Deep Learning from CT Scan Images
Joydeep Bhowmik, Srestha Majumder, Biswaraj Roy, Tanusree Podder 5

Neuroimaging Study for Finding Correlation Among Symptoms and Affected Brain Regions in Schizophrenia
Bisma Hilal, Indranath Chatterjee 6

Medical Image Processing Using Image Segmentation Techniques
Rabin Bhaumik, Dejee Deb, Parijata Majumdar 7

Deep Learning Techniques for Medical Image Segmentation- A Review
Sarmistha Banik and Parijata Majumdar 8

Analysing the White Matter Changes in Schizophrenia Using Neuroimaging and Machine Learning
Videsha Bansal and Indranath Chatterjee 10

Plant Leaf Disease Detection and Classification
Divya, Kuja, Yaashi Madan, Lubhani Agarwal, Vibha Pratap 11

A Predictive Model for Cyberstalking Detection on Twitter Using Support Vector Machine (SVM)
Arvind Kumar Gautam and Abhishek Bansal 12

Feature Selection Using Particle Swarm Optimization for Optimal Email Spam Classification
N.A.S. Vinoth, A. Rajesh 13

Fake News Detector on Social Media Using Machine Learning
Palash Sukla Das, Dipan Acharjee, Partha Pritam Deb 14

Movie Recommendation System Using Machine Learning
Sangramjit Pal 15

Social Network Analysis of COVID-19 Sentiments Using Machine Learning
Manidipa Debnath, Nibedita Mallik, Partha Pratim Deb 16

Fake News Detection Using Machine Learning
Abhi Mitra, Sujan Naha, Debajit Roy, Tanusree Podder 17

Sign Language Recognition Using Python
Tanudeep Ganguly, Partha Pratim Deb 18

Reinforcement of the Multi-Cloud Infrastructure with Edge Computing
L. Steffina Morin, P. Murali 19

A Review on Trends of Cloud Computing for Autonomous Vehicle
Koushik Sarkar, Partha Pratim Deb 20

Collision Avoidance in Crowded Zone Using Adversarial Reinforcement Learning
Balaji Natesan, Chuan-Ming Liu 21

Analyzing the Future of Autonomous Vehicle Using Machine Learning
Subhadeep Karmakar, Partha Pratim Deb 22

Teleoperation of a Tendon Driven Robotic Hand
Shubham Bhandari, Mohd. Zubair 23

Design and Development of Under Acctuated All-Terrain Octabot
AnirudhPareek, Sajal Jain, Mohd. Zubair 24

Design of a Robotic Hand Using Flexure Joints
Abhimanyu Shankar, Mohd. Zubair 25

Delta Robot Based Waste Segregation at Domestic Level
Mohd. Zubair, Harsh Kadia, Srijan Thakur 26

A Force-Based Calibration of the Cervical Spine Motion Setup
Paramanand V. Nandihal and Mohd Zubair 27

Botnet Attack Detection in Iot Networking Environment Using Machine Learning Approach
D.V.Jeyanthi, B.Indrani 28

Image Caption Generator with Music on Deep Learning Using Python
Ayesha Sen, Sankha Subhra Debnath 29

Analysis of Various Machine Learning / Deep Learning Performance of Advanced Persistent Threat Attack
Indra Kumari, Arjun Sarkar 30

Transfer Learning and Fine Tuning Based Early Detection of Cotton Plant Disease
Himani Bhatheja, N. Jayanthi 31

Bitcoin Price Prediction - Using Deep Learning System
Barsha Das, Rayeswari Dhar 32

A Survey on Unsupervised Machine Learning Approach for Fraud Detection in Bitcoin
Amit Kumar Mandal, Prosenjit Dinda 33

A Comparative Study and Analysis of Time-Series and Deep Learning Algorithms for Bitcoin Price Prediction
Sagar Chakraborty 34

Study and Investigation of PKI Based Blockchain Infrastructure
Rashmi Deshmukh, Shital Gaikwad 35

An Application of Blockchain Technology: A Systematic Review
Ajay Kumar and Faiyaz Ahmad 36

A Review of Watermarking Techniques for Privacy and Security
Barkha Sahu and Abhishek Bansal 38

The Reduction of the Overall Cost of Pallet Reverse Logistics Activities Implementing Iot Technology Evaluated by Activity-Based Costing Model
Khanh Ngoc Bao Le and Gyusung Cho 39

Forecasting the Real-Time Weather Data and Fuel Consumption to Find Out the Optimal Shipping Route
Hoang Nguyen Viet and Gyungsung Cho 40

Role of Internet Medium in Giving New Direction to Hindi
Ravi Kumar Goan, Bimlesh Kumar 41

5G Networks and Internet of Things (IoT)
Pradeep Singh, Ajay Kumar 43

A State-of-the-Art Proposition of House Wiring Electrical Fault Detection Method Using Internet of Things for Smart Cities
Anindita Deb, Samrat Kar, Astam Saha 44

Internet of Nano Things
Srirupa Datta Choudhury 45

Stock Market Forecasting Using Stacked LSTM Deep Learning System
Debasmita Pal, Ruchismita Majumder, Partha Pratim Deb 46

Weather Prediction with Machine Learning
Gaurav Sarkar, Jagrita Paul, Trishna Das, Parijata Majumdar 47

Forecasting Future Sales Using Arima
Sourabarna Roy, Debankita Mukhopadhyay, Partha Pratim Deb 48

Election Prediction Using Logistic Regression – Machine Learning System
Shirshendu Datta, Debankar Guha, Partha Pratim Deb 49

Stock Price Prediction-Using Random Forest
Rayeswari Dhar, Barsha Das 50

Prediction of COVID-19 Evolution Using Time-Series Methods
Ruchismita Majumder, Debasmita Pal ,Partha Pratim Deb 51

Time Series Forecasting Using Facebook FbProphet
Debankita Mukhopadhyay, Sourabarna Roy, Partha Pratim Deb 52

Implementation LSTM RNN Models for Univariate Time Series Forecasting
Souramita Bhowmik 53

Prediction of Top Ten Cryptocurrencies Price through Logistic Regression Based Time Series Analysis Model
Prosenjit Dinda, Amit Kumar Mandal 54

Machine Learning for Disaster Management
Sweta Shukla and T.V. Vijay Kumar 55

A Decision Making Approach to Determine the MostAffected Economic Sector for COVID-19
Arnab Paul 56

Prediction of Foreign Tourists Arrival Boosting Indian Coastal Tourism Economy
Avijit Chakraborty 57

Rainfall Prediction Model for the State of Telangana Using Arima Model: A Review
Saranya Roy 58

SVM for Remote Sensing Images
Suchanda Dey, Sourav Bardhan, Parijata Majumdar 59

A Study on Data Cleaning of Hydrocarbon Resource Under Deep Sea Water Using Imputation Technique Based Approach of Data Science
Dipjyoti Deb. 60

Carbon Loss Estimation Using Remote Sensing and GIS
Sujit Raha, Tanmoy Chakraborty 61

Sentiment Analysis Using Machine Learning Approaches on Social Media Data
Dharmendra Dangi, Amit Bhagat 62

Fake News Classification Using Fuzzy Based Deep Convolutional Neural Networks (FDNN) on Social Media Data
Dheeraj Kumar Dixit, Amit Bhagat 63

Role of Internet Media in Making the Editorial of Newspapers Useful to the Public
Bimlesh Kumar, Ravi Kumar Goan 64

Prediction of Data Traffic Flow Using Machine Learning Approach
Faiyaz Ahmad, Ajay Kumar 65

A Review on Machine Learning
Amal Kumar, Ajay Kumar 67

Machine Learning for Healthcare
Udeechee and T.V. Vijay Kumar 68

Artificial Neural Network
Pallabi Sarkar, Sankha Subhra Debnath 69

Machine Learning for Hypothesis Space and Inductive Bias: A Review
Anjani Kumar Singha and Swaleha Zubair 70

Prediction of Boston's House Price with Regression
Moutushi Shil 71

House Price Prediction Using Machine Learning Technique
Ushnita Deb, Saptarshi Dhali 72

Email Phishing Using Random Forest
Saugata Choudhury, Arijita Bhowmik 73

Application of Artificial Neural Network
Pratya Bhowmik, Srijan Roy, Ankan Chaudhuri.....74

Prediction and Analysis of Dropout Secondary Students inIndia Using Machine Learning Classification Algorithms
Sagar Chakraborty, Arpan Ghoshal 75

Artificial Intelligence for Healthcare: Issues, Challenges and Opportunities
Sumit Kumar and T.V. Vijay Kumar 77

Artificial Intelligence for Agriculture: Issues, Challenges and Opportunities
Shailender Singh and T.V. Vijay Kumar 78

Web Based Training Environment in Artificial Neural Network
Susmita Das, Sankha Subhra Debnath.....80

Determination of Quality of Food and Service in Restaurants by Obtaining Tipping Percentage with the Help of Fuzzy Inference System
Diksha Chakraborty, Sankha Subhra Debnath 81

The Impact of Artificial Intelligence and Big Data in the Postal Sector
Mary Ifeoluwa Olawuyi.....82

Online Photoshoot Booking System Using Php & Mysql
Dipan Acharjee, Palash Sukla Das, Partha Pritam Deb 83

Online Crime File Management System Using Php Mysql
Sahil Barua, Amili Deb 84

SQL Injection Prevention System Using PHP
Purba Das, Sumana Datta 85

Online Private Tutor Finder System Using PHP
Mousumi Aktar, Dipa Das.....86

Online Examination Management System Using Java
Tania Datta, Anamika Datta 87

MISS-2021
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2021

About the Conference

The proposed 1st International Conference on Machine Intelligence and System Sciences (MISS) 2021 will be held at Techno College of Engineering Agartala, Tripura, India to enable researchers build connections between different digital technologies based on Machine Intelligence, Image Processing and Internet of Things (IoT).

Through sharing and networking, MISS-2021 will provide an opportunity for researchers, practitioners and educators to exchange research evidence, practical experiences and innovative ideas on issues related to the Conference theme.

Prospective authors are encouraged to contribute to and help shape the conference through submission of their research papers. Also, high quality research contributions describing original and unpublished results of conceptual, constructive, empirical, experimental of theoretical work in all areas of Machine Intelligence, System sciences, Image Processing, Biomedical engineering, and Internet of Things (IoT) are cordially invited for presentation at the conference. The conference solicits contributions of papers that address themes and topics of the conference, including figures, tables and references of novel research materials.

Message from Principal

Warm and Happy greeting to all. I am immensely happy that CSE department of our college is organizing an international conference named 1st International Conference on Machine Intelligence and System Sciences(MISS 2021) on emerging technologies in Computer Science and Engineering On 1st and 2nd November, 2021 and is going present a collection of various technical abstracts in the proceedings.

Under the able guidance of our management TCEA continues to march on the way of success with confidence. The sharp, clear-sighted vision and precise decision-making powers of our management has benefited our college to say competitive.

The dedicated HOD's and staff members and disciplined students of TCEA are the added features of our college. The role students in building nation cannot be overlooked and students at TCEA are trained in all aspects to become a successful engineers and good citizens. On this occasion I would like the students all very best.

I also congratulate HOD, staff members, Organizing Committee members, Technical Program committee members, students of CSE departments, Participants from our colleges and other colleges for their efforts in organizing and participating in this conference and wish the conference all the success.

Dr. Dibakar Deb
Principal, TCEA
Agartala, Tripura(w)

Message from Conveners

We welcome all the participants from different corners of the world at MISS 2021. The main intention of organizing this conference is to share and heighten the knowledge of every person in this computer world. We have given a good opportunity for those who have a thirst in knowing the present technological developments and also share their ideas. Furthermore, this conference will also facilitate the participants to expose and share various novel ideas. The conference aims to bridge the researchers working in academia and other professionals through research presentations and keynote addresses in current technological trends. It reflects the growing importance of intelligent Computing systems as a field of research and practice. You will get ample opportunities to widen your knowledge and network. Such a large conference event is the culmination of many individuals. I thank the conference committee for extending their valuable time in organizing the program and all the authors, reviewers, and other contributors for their sparkling efforts and their belief in the excellence of MISS 2021.

Prof. (Dr.) Indranath Chatterjee
Prof. Partha Pratim Deb
Conveners
MISS-2021

About the Editors

Prof. (Dr.) Indranath Chatterjee is working as a Professor in the Department of Computer Engineering at Tongmyong University, Busan, South Korea. He received his Ph. D. in Computational Neuroscience from the Department of Computer Science, University of Delhi, Delhi, India. His research areas include Computational Neuroscience, Schizophrenia, Medical Imaging, fMRI, and Machine learning. He has authored and edited 7 books on Computer Science and Neuroscience published by renowned international publishers. To date, he has published more than 45 research papers in international journals and conferences.

He is a recipient of various global awards on neuroscience. He is currently serving as a Chief Section Editor of a few renowned international journals and serving as an Editorial board of various international journals of high repute. He is active Advocate of *Open-Science* and serving as a member of the Advisory Board of several international Open-Science organizations worldwide. He is presently working on several projects of government & non-government organizations as Principal Investigator, related to medical imaging and machine learning for a broader societal impact, in collaboration with several universities globally. He is an active professional member of the Association of Computing Machinery (ACM, USA), Organization of Human Brain Mapping (OHBM, USA), Federations of European Neuroscience Society (FENS, Belgium), Association for Clinical Neurology and Mental Health (ACNM, India), and International Neuroinformatics Coordinating Facility (INCF, Sweden).

Prof. Partha Pratim Deb is a Computer Science Engineer since 2008. He is an academic member of staff (Currently an Assistant Professor) and Head of the Department of Computer Science and Engineering Department at the Techno College of Engineering Agartala(TCEA). He has completed his M.Tech from Maulana Abul Kalam Azad University OF Technology(formerly West Bengal University of Technology), WEST BENGAL in 2013 and currently pursuing his Ph.D. from National Institute of Technology Agartala(NITA).

He has served in various administrative positions at TCEA including Head of the Department, Incharge of Student Affairs, Manager of Event Committee, member of the purchase committee.

He was associated with variuos education institues including Convolution educare, Techno International *New Town* (Formerly known as *Techno India* College of Technology) as an assistant Professor. He was also associated with two software farms including indilabs and 3isoftech. He is also a freelance software developer and project consultant of the software firm named, craftechgroup. He is an associate member of the *Institution of Engineers (India) (IEI), Tripura State Centre. He has published different journals and participated in various national and international conferences.*

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Inaugural Speakers (Advisory Committee)

- Welcome Address by Dr. Dibakar Deb, Principal, TCEA, Tripura
- Inaugural Speech by Prof. Manoshi RoyChowdhury, Co-Chancellor, TIU, WB
- Speech by Mr. Meghdut RoyChowdhury, Director of Global Operations, TIU, WB
- Speech by Ms. Pauline Laravoire, Director of Sustainability, TIU, WB
- Speech by Dr. Indranath Chatterjee, International Convener (MISS 2021) Professor, Tongmyong University, South Korea
- Speech by Guest of Honour Prof. (Dr) Goutam Sengupta, Vice Chancellor, TIU,WB

Keynote Speakers

Prof. Suk-Hwan Lee, Dong-A University, South Korea: He received his Ph. D. degree in Electrical Engineering from Kyungpook National University, Korea. Currently, he works as a professor in Department of Computer Engineering at Dong-A University. Previously, he worked as an associate professor in the Department of Information Security at Tongmyong University for around 15 years. He had also worked at Electronics and Telecommunications Research Institute in Korea. He is as the editor of Korea Multimedia Society journal and is a member of IEEE, IEEK, IEICE and also is an officer of IEEE R10 Busan section. His research interests include multimedia signal processing, multimedia security, digital signal processing, bio security, and computer graphics.

Prof. Naveen Kumar, University of Delhi, India: He is working as a Professor at Department of Computer Science, University of Delhi, Delhi, India. He has received his Ph. D in Computer Science from Indian Institute of Technology (IIT), Delhi, India. His current area of research is medical image processing, schizophrenia, multi-objective optimization, process mining, and security.

Dr. Kishor Roy, Techno India University, India: He has 33+ years of experience mainly in the IT Industries of USA, Europe, Singapore and India. He is the founder of two start-ups , and has a number of publications. Couple of research scholars is working under him mainly in the field of Data Science Management from India and abroad. He is the former Principal of Techno India Agartala, as well as Techno Main Salt Lake (TMSL). Currently, he is the Director General of Techno India Group.

Mr. Santanu Bhattyacharjee: He has more than 24+ years of experience in IT. He has previously worked for RS Software Ltd, PayPal (USA). Currently he is serving VISA Inc at Foster City, CA, USA as a Sr. Director. He has a BE degree in Electronics & Communication Engineering from NIT Bhopal which is also known as Maulana Azad National Institute of Technology and MS degree in Management Systems and Decision Science from George Washington University, USA. His current job responsibility includes but is not limited to design and development of observability solutions using open-source technologies for the enterprise at VISA Inc.

Dr. Bishanka Brata Bhowmik, Tripura University, India: He has done his PhD for Indian Institute of Technology Patna in 2015. Currently, he is working as an Assistant Professor in the Department of Electronics & Communication Engineering at Tripura University (A Central University), also, presently he is discharging his duties as Head (i/c) of the department. His research area is optical fiber communication & Photonics. He has worked in micro photonic devices; mainly focusing on micro ring resonators-based devices as higher order modulation format generators, optical logic gates and optical filters. Currently he is exploring the use of machine learning in optical fiber communication system. He has published several journal and conference papers and also served as a reviewer of different conferences and journals.

Acknowledgement

The Conveners of the Organizing Committee of the **1st International Conference on Machine Intelligence and System Sciences (MISS-2021)** would like to acknowledge the excellent work of our conference organizing committee members. Gratitude is also extended to our guest of honor Dr. Goutam Sengupta, all of our distinguished keynote and plenary speakers and to our Session Chairs. We would also like to acknowledge the important contributions of all of our conference participants and in particular those who made presentations for sharing with us their personal insights and aspirations. Special thanks to Prof. Goutam RoyChowdhury, Prof. Manoshi RoyChowdhury, Mr. Meghdut RoyChowdhury, and Ms. Pauline Laravorie for encouraging us and supporting our conference.

MISS thanks and presents our heartfelt appreciation to all the organizations that in one way or another supported the conference and contribute to its success. Your kind support has helped to push the research agenda forwards and come-up with resolutions that will definitely impact positive changes to our research world.

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