

6th International Conference on Recent Trends in Image Processing & Pattern Recognition (RTIP2R)



December 07-08, 2023

[University in Derby, Derby, UK](#)

... in collaboration with [2AI: Applied AI Research Lab](#), Department of Computer Science, University of South Dakota (USA)

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URLs: <https://rtip2r-conference.org/2023/> (2023) and <https://rtip2r-conference.org/> (home)

Note: For online participants, teams/zoom links will be provided via email.

RTIP2R 2023, Thursday 7th December, Day 1 Programme

09:00-10:00	Conference Registration and coffee/refreshments
10:00-10:15	Welcome Message from the Conference Co-Chair Prof Myra Conway
10:15-10:45	Official opening by Prof Warren Manning, Provost Innovation and Research, University of Derby
10:45-11:00	Conference notes by Prof. KC Santosh, University of South Dakota, USA
11:00-11:30	Keynote speaker, Girijesh Prasad, Ulster University, UK
11:30-12:00	Coffee Break
12:00-13:30	SESSION 1: Pattern recognition in blockchain, cyber and network security, and cryptography (chair: Asad Abdi) UI/UX for aerospace qualification business processes, Kenechukwu C Eyisi; Khuram Khayam; Wajahat Ali Khan; Maqbool Hussain; Ben Anderson; Muhammad Sadiq Hassan Zada Crypto Bank: Cryptocurrency Wallet Based on Blockchain, Ashish Tripathi; Arjun Choudhary; Sandeep Kumar Arora; Gautan Arora; Gargi Shakya; Bhavya Rajwanshi A Comprehensive Analysis of Blockchain Network Security: Attacks and their Counter measures, Gurpreet Kour Sodhi; Mekhla Sharma; Rajan Miglani Optimal Resource Allocation for Energy Harvested Cognitive Radio Networks based on Learn heuristic Algorithm, Parulpreet Singh; Vikas Shrivastava FNMD: An Evaluation of Machine learning and Deep learning Techniques for Fake News Detection, Bahareh Daneshvar; Asad Abdi; Seyyed Mahmoud Hosseini Enhancing Robotic Systems for Revolutionizing Healthcare using Markov Decision Processes Ikram DAHAMOU; Cherki DAOUI
13:30-14:30	Lunch
14:30-15:00	SESSION 2: Healthcare Informatics (chair: Abdul Wahid)

	<p>HLB disease detection in Omani Lime Trees using Hyperspectral Imaging based Techniques, Jacintha Menezes; Ramalingam Dharmalingam; Palaiahnakote Shivakumara</p> <p>Exploring Imaging Biomarkers for Early Detection of Alzheimer’s Disease using Deep Learning: A Comprehensive Analysis, Nahid Ms Sami</p>	
15:00-16:00	<p>SESSION 3: Pattern recognition in blockchain, cyber and network security, and cryptography (chair: Ravindra Hegadi)</p> <p>VAIDS: A hybrid deep learning model to detect intrusions in MQTT protocol enabled networks, Chetanya Kunndra; Arjun Choudhary; jaspreet kaur; Prashant Mathur</p> <p>Large-Language-Models (LLM) -based AI Chatbots: Architecture, In-depth analysis and their Performance Evaluation Vimal Kumar Baghel ; Ishan Budhiraja; Ruchika Arora; Debjani Ghosh; Vikas Goyal</p> <p>CincoCrypto - A Cryptocurrency Price Forecasting Tool For Everyone, Gonzalo Lara de Leyva; Ashutosh Dhar Dwivedi; Jens Myrup Pedersen</p> <p>Deep Neural Networks Based Security Solution for ATM Transactions, Neeraj Joshi</p> <p>Comparative studies of Stochastic techniques to minimize the cost of biomass supply networks, ADARSH Dr Arya; Vineeta Gautam; Adarsh Kumar</p>	<p>SESSION 4: Pattern recognition in blockchain, cyber and network security, and cryptography (chair: Asad Abdi)</p> <p>Blockchain-Enhanced Federated Learning for Secure Malicious Activity Detection in Cyber-Physical Systems, Arvind Kamble; V S Malemath; Suman Muddapur</p> <p>Classification of Images Extracted from Scientific Documents for Cyber Deception, Ghanshyam S Bopche; Saloni Pawar; Nilin Prabhaker</p> <p>Blockchain for Patient Data Integrity: Decentralised Storage and Retrieval in Modern Healthcare Systems, Deepak K sharma; Adarsh Kumar</p> <p>Federated Unlearning and Server Right to Forget: Handling Unreliable Client Contributions, Hasin Bano; Muhammad Ameen; Muntazir Mehdi; Amaad Hussain; Pengfei Wang</p> <p>Enhancing Android Malware Detection: CFS Based Texture Feature Selection and Ensembled Classifier for Malware App Analysis, Tejpal Sharma; Dhavleesh Rattan ; Jagbir Singh Gill (CGC Landran, Mohali); Parneet Kaur; Anuj Kumar Gupta</p>
16:00-16:30	Coffee Break	
16:30- 17:30	<p>SESSION 5: Applied Image processing (chair: Ravindra Hegadi)</p> <p>Potato Leaf Disease Classification Using Federated Learning, Amit Sharma; Dibyanarayan Hazra; Suneet Gupta; Riti Kushwaha; Divya Kumari</p> <p>ELA-Conv: Forgery Detection in Digital Images Based on ELA and CNN, Ayush Verma; Priyank Pandey; Manju Khari</p> <p>Leveraging Wavelets and Deep CNN for Sleep Pattern Recognition in Road Safety: An EEG Study, Saad Arif; Saba Munawar; Rashid Rafiq Marie; Syed Aziz Shah</p> <p>A study on automatic detection, length and mass estimation of fishes in aqua farming</p>	<p>SESSION 6: Pattern Recognition (chair: Abdul Wahid)</p> <p>Recognition and Transcription of Archaic Handwritten Modi Script Document: A Thought-provoking Crucial Research Area, Manisha S Deshmukh; Satish Kolhe</p> <p>Optimizing Drone Navigation using Shortest Path Algorithms, GIRIJALAXMI G; Dr. Ravindra S Hegadi</p> <p>Trees Detection from Aerial Images using the YOLOv5 family, Kavita V Houde; Parshuram Kamble; Dr. Ravindra S Hegadi</p> <p>Sugarcane bud detection using YOLOv5, Swathi P S; Dr. Ravindra S Hegadi</p> <p>Comparative Analysis of Various Transfer Learning Approaches In Deep CNNs for Image Classification,</p>

	<p>environment, Rajarshi Biswas; Rana Khonsari; Marcel Mutz; Dirk Dr. Werth</p> <p>An Arabic Chatbot Leveraging Encoder-Decoder Architecture Enhanced with BERT, Mohamed Boussakssou; Mohammed Erritali</p>	<p>Arnav Tyagi; Rishabh Khandelwal; Nitin A Shelke; Jagendra Singh; Dev Rajpa; Ishaan R Gaware</p>
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RTIP2R 2023, Friday 8th December, Day 2 Programme

09:30-10:00	Coffee/Refreshments	
10:00-11:00	<p>Talk 1 (10:00-10:30): AI for good, but how about carbon footprint? Speaker: Prof. KC Santosh (Applied AI Lab, University of South Dakota)</p> <p>Talk 2 (10:30-11:00): Knowledge acquisition from multimodal resources to actionable knowledge graphs Speaker: Dr. Wajahat Ali Khan (University of Derby)</p>	
11:00-12:00	<p>SESSION 7: Biometrics and Applications (chair: Abdul Wahid)</p> <p>Iris Recognition System in the Context of Authentication, Gaurav; Anamika Gulati; Ayush Verma; Manju Khari; Gaurav Tyagi</p> <p>Deep Learning for Biometric Attack Detection and Recognition, Mohd Maaz Khan; Arijeet Chandra Sen; OM PRAKASH SINGH; Dr. Jitendra Kumar Chaudhary; Mukesh Soni; Dr. K. Anbazhagan</p> <p>A Novel Biometric Authentication based on Blockchain and Watermarking, Anas Abou El Kalam</p> <p>Hybrid Transfer Learning Approach for Emotion Analysis of Occluded Facial Expressions, Dilshan Pamod; Charles Joseph; A.I Hewarathna; Vigneshwaran Palanisamy; Dr. L. S. Lekamge; Thuseethan Selvarajah</p>	
12:00-12:30	Coffee break	
12:30- 13:30	<p>Talk 3 (12:30-13:00): Health Technology Assessment in the Context of AI Applications in Healthcare Speaker: Dr. Vinaytosh Mishra (Gulf Medical University)</p> <p>Talk 4 (13:00-13:30): The Therapist: Annie the Chabot; the use of empathetic AI to increasing accessibility to mental support Dr Mabrouka Abuhmida (University of South Wales)</p>	
13:30-14:30	Lunch	
14:30-16:00	<p>SESSION 8: Healthcare Informatics (chair: Abdul Wahid)</p> <p>Leveraging Handwriting Impairment as a Biomarker for Early Diagnosis of Parkinson's Disease, Anish Mathew Chacko; Rodrigue Rizk; KC Santosh</p> <p>Enhancing CT Image Visualization and Analysis through Rescaling Raw Pixel Values to Hounsfield Units SHIVALEELA BETAGERI; Rohini A. Bhusnurmath</p> <p>Diabetic Retinopathy blood vessel detection using Deep-CNN-based feature extraction and classification, ANITA MURMU; PIYUSH KUMAR</p> <p>Detection of COVID-19 Disease Using Federated Learning, Saurabh Dixit</p>	<p>SESSION 9: Healthcare Informatics (chair: Ravindra S Hegadi)</p> <p>A Stack Ensemble Approach for Early Alzheimer Classification using Machine Learning Algorithms, Amit Kumar; Neha Sharma; Rahul Chauhan; Akhilendra Khare; Abhineet Anand; Manish Sharma</p> <p>Silicosis Detection using Extended Transfer Learning Model, Priyanka Harjule; Basant Agarwal</p> <p>Automated Make and Model Identification of Reverse Shoulder Implants Using Deep Learning Methodology, Ramanathan A</p> <p>COVID-19 Disease Prediction Using Generative Adversarial Networks with Convolution Neural Network (GANs-CNN) Model, Kakelli Anil Kumar;</p>

	<p>Breast Cancer Detection Using Optimal Machine Learning Techniques: Uncovering the Most Effective Approach, Tanmay Prashant Joshi; Dr. Ravindra S Hegadi</p> <p>Compressed Deep Learning Models with XAI for COVID-19 Detection using CXR images, PRAKHAR CONSUL; Deepanshi Deepanshi; Namo Jain</p> <p>Realistic skin image Data Generation leveraging Conditional GAN and classification using Deep CNN, JINAGA TULASIRAM; Balaji Banothu ; Nickolas S</p> <p>Analyzing pulmonary abnormality with superpixel based graph neural network in chest x-ray, Ronaj Pradhan</p>	<p>Binamra Neupane; Saugat Malla; Durga Prasad Pandey</p> <p>Modified Snapshot Ensemble Algorithm for Skin Lesion Classification, Samson Anosh Babu Parisapogu; Mohammed Mastan Meera Durga; Kaushik Shashank Reddy Vallela; Kalyan Chakravarthi Boyapati</p> <p>A residual learning approach towards the diagnosis of colorectal disease effectively, raseena tp; Jitendra Kumar; S. R. Balasundaram</p> <p>Radiography and Thermography based Image Processing Techniques for Assessment of Lower Back Pain, Praveen P; Mallikarjunaswamy M S; Chandrashekara S</p>
16:00-16:30	Coffee break	
16:30-18:00	<p>SESSION 10: Artificial intelligence and applied machine learning (chair: Wajahat Ali Khan)</p> <p>Building a heroin abuse prediction model: a generalized machine learning approach, Divya Kumari; Aleena Swetapadma</p> <p>Fake News Detection Using Transfer Learning, Jagendra Singh; Dinesh Dr. Sahu; Tanya Gupta; Dev Singh; Bechoo Lal; Anil V Turukmane</p> <p>Deep Learning Envisioned Accident Detection System, INTEKHAB ALAM; Ayush Verma; Manju Khari</p> <p>Revolutionizing Drug Discovery: Unleashing AI's Potential in Pharmaceutical Innovation, Ashish Singh Chauhan; Anita Gehlot; Samta Kathuria; G Sunil</p> <p>Empathy-Driven Chatbots for the Arabic Language: A Transformer Based Approach, Ismail Rabii; Mohamed Boussakssou; Mohammed Erritali</p> <p>Image Classification Using Federated Learning, Haewon Byeon; AJDAR ULLAH; Ziauddin Syed; ALIGHAZI SIDDIQU; Aasif Aftab; Mohd Sarfaraz</p> <p>Preserving Accuracy in Federated Learning via Equitable Model and Efficient Aggregation, Muntazir Mehdi</p> <p>Fake News Investigation Using Ensemble Machine Learning Techniques, Vimal Kumar Baghel; Ishan Budhiraja; Simar Preet Singh; Ruchika Arora; Vansh Dubey; Jai Jain; Lakshit Sama</p>	<p>SESSION 11: Artificial intelligence and applied machine learning (chair: Ravindra S Hegadi)</p> <p>Comparative Analysis of CNN Pre-trained Model for Stock Market Trend Prediction, Jitendra Kumar Chauhan; TANVEER AHMED; Amit Sinha</p> <p>Deep Reinforcement Learning Based Energy-Efficient Design for STAR-IRS Assisted V2V Users, Shalini Yadav; Rahul Rishi</p> <p>Deep Reinforcement learning based intelligent resource allocation techniques with applications to cloud computing, Ramanpreet Kaur</p> <p>A Review on Machine Learning Techniques in IoT-based Smart Grid Applications, Samarth Goyal; Ishita Goyal; TANVEER AHMED</p> <p>Transformation Of Corporate Social Responsibility Practices: Adapting Artificial Intelligence and Internet of Things, Vaseem Akram Shaik; shivangi khare; vaibhav uniyal; Prof. Srinivas Aluvala; Samta Kathuria; Ashish Singh Chauhan</p> <p>Various Active Learning Strategies Analysis in Image Labeling: Maximizing Performance with Minimum Labeled Data, Arnav Tyagi; Harshvardhan Aditya; Nitin A Shelke; Rishabh Khandelwal; Jagendra Singh; Yagna Jadeja; Anil V Turukmane</p> <p>Deep Learning Based Bug Detection in Solidity Smart Contracts, Jagendra Singh; Dinesh Prasad Sahu; Shreyans Murkute; Ujjwal Yadav; Manish Agarwal; Pranay Kumar</p>
18:00-18:30	Announcement: following events, best paper awards, best dissertation awards, and many more Concluding remarks	