

# International Conference on Computational Intelligence & Sustainable Technologies



LinkingBits Systems Pvt. Ltd



NIT Silchar



October 28-30, 2021



NIT Sikkim

Jointly Organized by

**NIT Silchar, India & NIT Sikkim, India**



## MASTER PROGRAM SCHEDULE

### DAY-1 (28-10-2021) THURSDAY

10.00 AM - 11.00 AM	<i>Inauguration Program</i>	
11.00 AM - 12.00 NOON	<i>Keynote Auditorium</i>	<i>Plenary Talk by Prof. P. N. Suganthan, NTU Singapore</i>
12.00 NOON - 1.00 PM	<i>Keynote Auditorium</i>	<i>Keynote Talk by Dr. Rammohan Mallipeddi, KNU, South Korea</i>
1.00 PM - 3.00 PM	<i>Lunch Break</i>	
3.00 PM - 5.30 PM	Technical Sessions (PS: Parallel Session)	
	<i>Hall - 1</i>	<i>Hall - 2</i>
	<b>PS - 1</b>	<b>PS - 2</b>

### DAY-2 (29-10-2021) FRIDAY

10.00 AM - 11.00 AM	<i>Keynote Auditorium</i>	<i>Keynote Talk by Mr. Aninda Bose, Senior Editor, Springer</i>
11.00 AM - 1.30 PM	Technical Sessions (PS: Parallel Session)	
	<i>Hall - 1</i>	<i>Hall - 2</i>
	<b>PS - 3</b>	<b>PS - 4</b>
1.30 PM - 3.00 PM	<i>Lunch Break</i>	
3.00 PM - 5.30 PM	Technical Sessions (PS: Parallel Session)	
	<i>Hall - 1</i>	<i>Hall - 2</i>
	<b>PS - 5</b>	<b>PS - 6</b>

### DAY-3 (30-10-2021) SATURDAY

10.00 AM - 11.00 AM	<i>Keynote Auditorium</i>	<i>Keynote Talk by Dr. Himani Saini, Senior Scientist, ISRO</i>
11.00 AM - 1.30 PM	Technical Sessions (PS: Parallel Session)	
	<i>Hall - 1</i>	<i>Hall - 2</i>
	<b>PS - 7</b>	<b>PS - 8</b>
1.30 PM - 3.00 PM	<i>Lunch Break</i>	
3.00 PM - 4.00 PM	<i>Keynote Auditorium</i>	<i>Keynote Talk by Prof. Pierluigi Siano, University of Salerno, Italy</i>
4.00 PM - 5.00 PM	<i>Valedictory Program</i>	

# International Conference on Computational Intelligence & Sustainable Technologies



LinkingBits Systems Pvt. Ltd



NIT Silchar



October 28-30, 2021



NIT Sikkim

Jointly Organized by

**NIT Silchar, India & NIT Sikkim, India**



Parallel Session – 1 (EE)			
Session Details:		PS-1 (Date: 28.10.2021, Time: 3.00 PM – 5.30 PM)	
Sl. No.	Paper ID	Name of the Authors	Title of the Paper
1	<b>39</b>	Perikala Sowmith, Nadakuditi Goutham Kumar and Battula Varun Kumar	Multi objective Hydro-Thermal-Wind Scheduling applying PSO
2	<b>45</b>	Sambit Satpathy, Munesh Chandra Trivedi, Chandra Shekhar Yadav, Prakash Mohan and Neeraj Kumar Mishra Mishra	New characterization of electrode of super capacitor with its application as a backup power supply
3	<b>51</b>	Jaya Chandra Panigrahi, Narmadha Bejjupalli, Yatindra Gopal and Y. N. Vijaya Kumar	A Grid Connecting Control Scheme for Reactive Power Compensation of PV Inverter
4	<b>66</b>	Nishant Thakkar and Priyanka Paliwal	A state-of-the-art review on multi-criteria decision making approaches for micro-grid planning
5	<b>69</b>	Rajasekaran S and Saraswathi A	Availability of different agricultural biomass for energy applications in Villupuram and Cuddalore district
6	<b>85</b>	Divya Asija, Rajkumar Viral and Tarannum Bahar	Expanding Electricity Access in Rural Uttarakhand by Mobilization of Local Resources
7	<b>94</b>	Ratnesh Kumar Gupta, Ajay Somkuwar and Lalita Gupta	Data-Path Designing in Multi-Voltage Domain
8	<b>97</b>	Para Vidya Sagar and Dr M.S.Krishna Rayalu	State Space Approach of Automatic Generation Control of Two-Area Multi Source Power systems

# International Conference on Computational Intelligence & Sustainable Technologies



LinkingBits Systems Pvt. Ltd



NIT Silchar



October 28-30, 2021



NIT Sikkim

Jointly Organized by

**NIT Silchar, India & NIT Sikkim, India**



## Parallel Session – 2 (CE)

**Session Details: PS-2 (Date: 28.10.2021, Time: 3.00 PM – 5.30 PM)**

Sl. No.	Paper ID	Name of the Authors	Title of the Paper
1	<b>30</b>	Ashwani Bokadia, Mokaddes Ali Ahmed and. Debasish Das	On Street Parking In Residential Areas: A Review
2	<b>31</b>	Prasenjit Das, Mokaddes Ali Ahmed and Debasish Das	On-street parking management in Urban CBD: A Review
3	<b>54</b>	Uddipta Ghosh, Ranajit Kumar Biswas, Debasish Das, Debargha Banerjee and Baibaswata Das	Design And Operation Of Drip Irrigation System To Orchard By Using Stored Rain Water Through Solar Photovoltaic Water Pump
4	<b>58</b>	Suvrajit Banerjee, Baibaswata Das, Debargha Banerjee, Debasish Das and Uddipta Ghosh	Review On High Performance Concrete By Replacing Conventional Cement With Fly Ash And Silica Fume
5	<b>59</b>	Debargha Banerjee, Debasish Das, Uddipta Ghosh, Suvrajit Banerjee and Baibaswata Das	Study Of Various Methods And Technologies Used In Waste Water Treatment To Control Water Pollution
6	<b>65</b>	Saikat Deb, Debasish Das and Mriganka Mazumdar	Estimating the Effectiveness of Paratransit Service in Guwahati City
7	<b>101</b>	Saikat Deb and Debasish Das	Quality Assessment of Public Transport: A Review
8	<b>110</b>	Anindita Paul and Mokaddes Ali Ahmed	AHP-utility Approach for Mode Choice Analysis of Online Delivery System
9	<b>139</b>	Rajendra N Paul, Prashanth Janardhan and Harish Narayana	Numerical Modelling of Infiltration rate

# International Conference on Computational Intelligence & Sustainable Technologies



LinkingBits Systems Pvt. Ltd



NIT Silchar



October 28-30, 2021



NIT Sikkim

Jointly Organized by

**NIT Silchar, India & NIT Sikkim, India**



Parallel Session – 3 (AI & ML)			
Session Details:		PS-3 (Date: 29.10.2021, Time: 11.00 AM – 1.30 PM)	
Sl. No.	Paper ID	Name of the Authors	Title of the Paper
1	<b>84</b>	Mousumi Banerjee and Vanita Garg	Stock Market Prediction of Neural network: A Literature Review
2	<b>86</b>	Suganya Devi K., Sekar K., Nivedita Singh, Subhra Jyoti Baroi, Dhiraj Kr. Sah and Kaushik Borahi	Detection of Abnormalities in Mammograms using Deep Convolutional Neural Networks
3	<b>87</b>	Surya Pratap Singh, Shivam and Indrajeet Kumar	Orange Fruit Recognition using Neural Networks
4	<b>88</b>	Suresh Gulivindala, Lalitha N V and Aditya Kumar Sahu	Machine learning based method for recognition of paddy leaf diseases
5	<b>126</b>	Eduri Raja, Badal Soni, Shivangi Mishra and Ashish Dwivedi	Stand-Alone Bidirectional Encoder Representations from Transformers based Fake News Detection Model
6	<b>135</b>	Vikas Gupta and Brahmjit Singh	Investigation of Localization Error in Range Free Centroid and DV Hop Based Localization Algorithms and Optimization using PSO
7	<b>136</b>	Purna Chandra Sethi and Prafulla Kumar Behera	Dynamic Network Traffic Management for Secure and Faster Data Transmission
8	<b>142</b>	Md Azharuddin and M N Pratik	Predicting Autism Using Machine Learning

# International Conference on Computational Intelligence & Sustainable Technologies



LinkingBits Systems Pvt. Ltd



NIT Silchar



October 28-30, 2021



NIT Sikkim

Jointly Organized by

**NIT Silchar, India & NIT Sikkim, India**



Parallel Session – 4 (ECE)			
Session Details: PS-4 (Date: 29.10.2021, Time: 11.00 AM – 1.30 PM)			
Sl. No.	Paper ID	Name of the Authors	Title of the Paper
1	<b>29</b>	Pragya Pandey, Kajal Kumari, Malvika, Addanki Prathima and Kavicharan Mummaneni	Optimized design of ALU using Reversible Gates
2	<b>36</b>	Shovon Nandi, Arnab Nandi and Narendra Nath Pathak	Deep Learning Assisted Technology for MIMO OFDM 5G Application
3	<b>55</b>	Senthilkumar V.M. and Ravindrakumar S	Quantification of Urinary bladder for early detection of hazard in Oliguric patient under dialysis using Embedded System
4	<b>62</b>	Devasena K, Sarika M and Shana J	Predicting Tamil Nadu Election 2021 Results using Sentimental Analysis Before Counting
5	<b>64</b>	Harisudhan V L, P Narean Karthick and Shana J	Ticket Dispensation Using Face Detection and Classification
6	<b>70</b>	Sekar K., Suganya Devi K., Srinivasan P. and Dheepa T.	Deep Wavelet based Compressive Sensing Data Reconstruction for Wireless Visual Sensor Networks
7	<b>71</b>	Hemalatha K N, Girija S and Sangeetha B G	Optimized 64-bit reversible BCD Adder for low power applications and its comparative study
8	<b>100</b>	Rohitash Verma and Satyasai Jagannath Nanda	A neural network model to estimate parameters of DBSCAN for flood image segmentation

# International Conference on Computational Intelligence & Sustainable Technologies



LinkingBits Systems Pvt. Ltd



NIT Silchar



October 28-30, 2021



NIT Sikkim

Jointly Organized by

**NIT Silchar, India & NIT Sikkim, India**



Parallel Session – 5 (EE)			
Session Details: PS-5 (Date: 29.10.2021, Time: 3.00 PM – 5.30 PM)			
Sl. No.	Paper ID	Name of the Authors	Title of the Paper
1	32	Naladi Ram Babu, Lalit Chandra Saikia, Sanjeev Kumar Bhagat and Biswanath Dekaraja	Optimal Location of IPFC on LFC Studies Considering PI-TIDN controller and RT-Lab
2	33	Biswanath Dekaraja, Lalit Chandra Saikia and Naladi Ram Babu	Redox Flow Battery Support for Combined ALFC-AVR Control of Multiarea Thermal system Incorporating Renewable Energy Sources
3	57	Daya Sagar Gupta	A mutual authentication and key agreement protocol for smart grid environment using lattice
4	76	Anurag Protim Saikia, Rahul Roy, Subir Datta, Sadhan Gope, Subhasish Deb and Ksh Robert Singh	Classification Of Medicinal Plant Species Using Neural Network Classifier: A Comparative Study
5	103	Akriti Agrawal, Priyanka Paliwal and Tripta Thakur	Economic Load Dispatch: A Holistic Review on Modern Bio-Inspired Optimization Techniques
6	113	C Rohming Tluanga, Subir Datta and Nidul Sinha	A Comprehensive Study on SCADA based Intake, Water Treatment Plant and Intermediate Pumping Station of Existing Water Supply System
7	121	Prakhar Srivastava, Mohit Bajaj, Youcef Belkhier, Naveen Kumar Sharma, Subhashree Choudhury and Srikanth Goud B	Power Quality Issues with Penetration of Wind Energy and The Role of LDC: A Mini Review
8	125	Sujit Kumar, Anuj Banshwar and Naveen Sharma	Strategies on Smart Energy Management Policies in India
9	128	Shivam Sharma, Gagandeep Kaur and Naveen Kumar Sharma	A Tactical analysis of SSPT Modules with Smart-Grid Renewable Energy System Entanglement

# International Conference on Computational Intelligence & Sustainable Technologies



LinkingBits Systems Pvt. Ltd



NIT Silchar



October 28-30, 2021



NIT Sikkim

Jointly Organized by

**NIT Silchar, India & NIT Sikkim, India**



Parallel Session – 6 (AI & ML)			
Session Details: PS-6 (Date: 29.10.2021, Time: 3.00 PM – 5.30 PM)			
Sl. No.	Paper ID	Name of the Authors	Title of the Paper
1	11	Sanjay Dutta and Ramya V Nair	Multi-Choice Programming with Benefits using Kriging Interpolation Method
2	13	Rahul Sharma, Tripti Goel and R Murugan	Prediction of Alzheimer's Disease using Machine Learning Algorithm
3	35	Sagar Dutta, Banani Basu and Fazal Ahmed Talukdar	Cascaded Neural Network Approach for Template Based Array Synthesis
4	41	Suchandra Dutta, Siddhartha Mondal and Dhrubasish Sarkar	Design and Implementation of Recommendation System using Sentiment Analysis in Social Media
5	42	Meet Singh and Dhrubasish Sarkar	Content Based Movie Recommendation System with Sentiment Evaluation of Viewer's Reviews
6	48	Jisha Raj R, Smitha Dharan and Sunil T T	Classification of Indian classical dance hand gestures: A Dense SIFT based approach
7	61	Jyoti Rawat, Sachin Rawat, Indrajeet Kumar and J. S. Devgun	Identification of Malignant Lymphoblast Cell in Bone Marrow using Machine Learning
8	67	R. Mathumitha and K. Manimala	Smart building energy management system using big data and Machine learning
9	72	Nikita Sharma, Dhrubasish Sarkar and Suchandra Dutta	Disease Prediction using Various Data Mining Techniques

# International Conference on Computational Intelligence & Sustainable Technologies



LinkingBits Systems Pvt. Ltd



NIT Silchar



October 28-30, 2021



NIT Sikkim

Jointly Organized by

**NIT Silchar, India & NIT Sikkim, India**



## Parallel Session – 7 (Modeling and Optimization)

Session Details: PS-7 (Date: 30.10.2021, Time: 11.00 AM – 1.30 PM)

Sl. No.	Paper ID	Name of the Authors	Title of the Paper
1	<b>21</b>	Praveen Kumar Gupta and Asish Adak	A Study of the Caputo-Fabrizio Fractional Model for Atherosclerosis Disease
2	<b>26</b>	B. Hema Sundar Raju and Dipjyoti Nath	Fourth order computations of forced convection heat transfer past an isothermal/isoflux cylinder in cylindrical geometry with pseudo time iteration technique
3	<b>102</b>	Pooja Singhal, Parth Goel, Jatin Sachdeva, Nitin Teotia and Mohak Gogia	Blockchain Technology Used in the Mid-Day Meal Scheme Program Supply Chain Management
4	<b>107</b>	Raghav Parouha	Engineering optimization using an advanced hybrid algorithm
5	<b>108</b>	Vamsidhar Anagani, T.Surya Kavitha and Ramesh Babu	Image Enhancement using Chicken Swarm Optimization
6	<b>111</b>	Manasa Murali, Sreelakshmi A B, Swathi K S, Divyatha Shetty K and Chethana K	Medical Electronics Device to Provide Non-Invasive Therapy to Treat Deep Vein Thrombosis using BLE and Embedded Systems
7	<b>116</b>	Hira Javed, M.M. Sufyan Beg and Nadeem Akhtar	Multimodal Summarization: A Concise Review
8	<b>130</b>	Sudheer Kumar Nagothu	Smart Student participation Assessment using Fuzzy Logic
9	<b>140</b>	Dhivya S and Arul R	Hybrid Flower Pollination Algorithm for optimization problems



# International Conference on Computational Intelligence & Sustainable Technologies



LinkingBits Systems Pvt. Ltd



NIT Silchar



October 28-30, 2021



NIT Sikkim

Jointly Organized by

**NIT Silchar, India & NIT Sikkim, India**



Parallel Session – 8 (ECE)			
Session Details: PS-8 (Date: 30.10.2021, Time: 11.00 AM – 1.30 PM)			
Sl. No.	Paper ID	Name of the Authors	Title of the Paper
1	<b>27</b>	Abhishek Zade, Sumit Kumar Singha, Jagritee Talukdar, Addanki Prathima and Kavicharan Mummaneni	Implementation of Arithmetic Logic Unit using Area Efficient Adder
2	<b>56</b>	Himanshu Deka, L.Lolit Kumar Singh, Sudipta Chattopadhyay and Abhijyoti Ghosh	Shorted Non-radiating Edges Integrated 2x1 Rectangular Microstrip Antenna for Concurrent Improvement of Gain and Polarization Purity
3	<b>104</b>	Meenakshi Sanyal and Somenath Chakraborty	Enhanced Multigradient Dilution Preparation
4	<b>106</b>	Pichingla Kharei, Achinta Baidya and Niladri Pratap Maity	Breakdown Voltage Improvement in AlGaN/GaN HEMT by Introducing a Field Plate
5	<b>112</b>	Vivek Kumar and Sangram Ray	Applying Efforts for Behavior Based Authentication for Mobile Cloud Security
6	<b>119</b>	Anirudha Tadpatri, Prajwal B, Pramod Ugargol, Rakesh Shridhar and Ajjaiah Hbm	Autonomous Herbicide Spraying System using Swarm Intelligence
7	<b>131</b>	Vipashi Kansal, Harsiddhi Singhdev and Bhaskar Pant	Study On Real World Applications Of SVM
8	<b>134</b>	Ananya Roy, Prodipto Das and Rajib Das	Generation of a Trust Model for Secured Data Transfer in IoT