

# INTERNATIONAL CONFERENCE ON CONTROL, COMMUNICATION AND COMPUTING (IC4-2018)

THE CENTRAL RESIDENCY, ARISTO, THAMPANOOR  
JULY 05 – 07, 2018

## SCHEDULE (Tentative)

### DAY 1 (July 05, 2018)

#### INAUGURATION

Time: 09:30 am - 10.30 am  
Venue: MAPLE

Chief Guest	<b>Dr. Usha Titus IAS</b> Principal Secretary, Higher Education, Government of Kerala
Key Note Address	<b>Prof. C E Veni Madhavan</b> Professor, Indian Institute of Science Bangalore Topic: <b>Crypto and Currencies: ecash, fcash and zcash</b>

#### PLENARY SESSION

Time: 10:45 am – 1.00 pm  
Venue: MAPLE

Plenary Session 1	<b>Prof. Rick S Blum</b> Professor, Electrical and Computer Engineering Leigh University, United States Topic : <b>Cyber Attacks on Internet of Thing (IoT) Systems</b>
Plenary Session 2	<b>Kesavadas V</b> Chief Engineer (Technology & Projects) Kerala State Electricity Board Topic: <b>Development in Smart Grids – Challenges &amp; Opportunities</b>

## DAY 1 (July 05, 2018)

### RESEARCH SESSION 1 : CONTROL SYSTEMS (CS)

Time: 1:45 pm – 2:45 pm  
Venue: MAPLE

Sl. No.	Session ID	Paper ID	Title	Presented By
1	CS1	95	Discrete sliding mode control technique applied to reusable launch vehicle	Swathy Mohan V
2	CS2	103	Study of Control Strategies for a Non-linear Benchmark boiler	Amal Shekhar S
3	CS3	156	Motion Planning and Control of an Autonomous Mobile Robot	Anisha Varghese

### RESEARCH SESSION 2 : GUIDANCE AND NAVIGATIONAL CONTROL (GNC)

Time: 2.45 pm – 4.15 pm  
Venue: MAPLE

Sl. No.	Session ID	Paper ID	Title	Presented By
1	GNC1	42	Cascaded LQR Control for Missile Roll Autopilot	Viswanath Devan
2	GNC2	210	Low Cost Satellite Constellation Design using Walker's Method for a Specified Launch Station	Dany Jennez
3	GNC3	233	Robust Control of a Dimensionless Dual Axis MEMS Vibratory Gyroscope- A Sliding Mode Approach	Pheba Mary Varghese
4	GNC4	234	Orbit Transfer Guidance using Feedback Linearization	Geethu Boban Thadathil

### RESEARCH SESSION 3 : COMMUNICATION 1 (CM1)

Time: 1:45 pm – 3.00 pm  
Venue: EBONY

Sl. No.	Session ID	Paper ID	Title	Presented By
1	CM 1.1	64	Wireless Sensor Networks based Monitoring of Railway Tracks	Suhas B N
2	CM 1.2	74	Interference Cancellation using Autocorrelation Division Multiple Access Filter in MIMO Ad-hoc Networks	Ananthi Govindasamy
3	CM 1.3	101	A Modified Low Complexity Mask Compliant Spectral Precoder for OFDM Based Cognitive Radio	Naveen Kumar P
4	CM 1.4	111	Performance Comparison of Parallel Concatenated Gallager Codes with Different Types of Interleavers	Aswathy G P

### RESEARCH SESSION 4 : VLSI (VL)

Time: 3.00 pm – 4.30 pm  
Venue: EBONY

Sl. No.	Session ID	Paper ID	Title	Presented By
1	VL1	26	ARM-FPGA Implementation of a partially reconfigurable OFDM-MIMO Phy-link	Arun Kumar K A
2	VL2	150	Negative Capacitance Germanium-Double Gate-pFET- A novel device concept for ultra low voltage/low power applications	Monika Bansal
3	VL3	162	A High Speed Radiation-Hardened Latch Using Pull-Up and Pull-Down Networks in 32nm CNTFET Technology	Aashish Nair
4	VL4	201	Performance Enhancement of Content Addressable Memory with Pre-charge -free Technique	Surya Cherian

## RESEARCH SESSION 5 : COMPUTER NETWORKS (CN)

Time: 1:45 pm – 3.15 pm

Venue: PINE

Sl. No.	Session ID	Paper ID	Title	Presented By
1	CN1	22	Effect of White Noise on the Structural Properties of Networks arose from time series	Mallika M C
2	CN2	80	Bio-Inspired Algorithms for Software Defined Network Controllers	R Ananthalakshmi Ammal
3	CN3	87	Adaptive Network Coding based Cooperative Medium Access for Wireless Networks	Roshan Anna John
4	CN4	184	Enhancing Performance and Reliability of Network File System	Aswin Babu Karuvally
5	CN5	221	Fault-Tolerant Routing with Minimum Delay for Mesh Architecture	Hari Krishnan

## RESEARCH SESSION 6 : IMAGE PROCESSING 1 (IP1)

Time: 3:30 pm – 4:30 pm

Venue: PINE

Sl. No.	Session ID	Paper ID	Title	Presented By
1	IP1.1	33	Computerized Detection of Macular Edema using Oct Images Based on Fractal Texture Analysis	Athira S C
2	IP1.2	41	Analysis of Alzheimer Condition in T1-Weighted MR Images using Texture Features and KNN Classifier	Telegarapu Prabhakar
3	IP1.3	60	Impulse Noise Removal From Digital Images By Using Edge Preserved Morphological Mean Filter	Shehin Shams P
4	IP1.4	88	Reversible and Secure False Color Based Image Privacy Protection with Color Palette Generation	Pavithra T P

## DAY 2(July 06, 2018)

### RESEARCH SESSION 7 : POWER SYSTEMS 1 (PS1)

Time: 9.30 am – 11.00 am

Venue: MAPLE

Sl. No.	Session ID	Paper ID	Title	Presented By
1	PS1.1	35	Design of a Novel IEC 61850 based Merging Unit for Substation Automation	Lajitha C S
2	PS1.2	65	Grid Inertia Based Frequency Regulation Strategy of Photovoltaic Systems Without Energy Storage	Rijo Rajan
3	PS1.3	102	A novel approach for the extrapolation of wind speed time series to higher altitude using machine learning model	P Valsaraj
4	PS1.4	130	Demand Side Management for a Household using Resource Scheduling	Nisha Mohan
5	PS1.5	153	Receding Horizon Control of Naturally Ventilated Greenhouse with Rooftop Wind Turbine	Rahul Singhal

### RESEARCH SESSION 8 : POWER SYSTEMS 2 (PS2)

Time: 11.15 am – 1.00 pm

Venue: MAPLE

Sl. No.	Session ID	Paper ID	Title	Presented By
1	PS2.1	205	Mitigation of Low Frequency Oscillations in Two Area System using STATCOM with PODC	Aathira Rajeev
2	PS2.2	207	Symmetrical Fault Detection During Power Swing Using Autoregression Technique	Hari V
3	PS2.3	225	Artificial Neural Network Based Hybrid MPPT for Photovoltaic Modules	Arjun M
4	PS2.4	226	Comparative Study of MPPT Algorithms with Adaptive single sensor based MPPT for Standalone PV Systems	Arjun Divakar
5	PS2.5	235	Indoor Light Harvesting Using Dye Sensitized Solar Cell	Priya Poullose

## RESEARCH SESSION 9 : BIOMEDICAL (BM)

Time: 9.30 am – 11.10 am  
Venue: EBONY

Sl. No.	Session ID	Paper ID	Title	Presented By
1	BM1	8	Non-Invasive fall detection system for Parkinson's disease	Navya J S
2	BM2	61	Early Diagnosis of Alzheimer's Disease from MRI images using PNN	Vivek R. S.
3	BM3	66	Portable and Centralised E-Health Record System for Patient Monitoring using Internet of Things(IoT)	Shanin F
4	BM4	105	Computer Aided Detection of Demarcation line/ Ridges in the Retinal Fundus Images of Preterm Infants	Gokul G Kurup
5	BM5	136	Feature Optimization and Classification of Tumor Grades using MR Images	Anitta Antony
6	BM6	165	A review of chaotic analysis of EEG in neurological diseases	Jisu Elsa Jacob

## RESEARCH SESSION 10 : COMMUNICATION 2 (CM2)

Time: 11.20 am – 1.10 pm  
Venue: EBONY

Sl. No.	Session ID	Paper ID	Title	Presented By
1	CM2.1	70	Second-Order Cyclostationarity for Blind Symbol Rate Estimation of APSK Signals	Dileep P
2	CM2.2	127	Safety Alert Systems using Dedicated Short Range Communication for on Road Vehicles	Lijo Thomas
3	CM2.3	169	Dual band circular polarized wearable antenna for military applications	Amulya Kumar
4	CM2.4	192	Compressed Sensing Algorithm for Pattern Division Multiple Access (PDMA) in 5G Radio Networks	Kavya Vinod
5	CM2.5	193	Indoor Propagation of IRNSS Signals: Preliminary Results	Sridher T
6	CM2.6	227	Simulation of MIMO System with 2-D and 3-D Optical Orthogonal Codes using MATLAB and OptiSystem	Sreejith S

## RESEARCH SESSION 11 : NATURAL LANGUAGE PROCESSING (NLP)

Time: 9.30 am – 11.00 am  
Venue: PINE

Sl. No.	Session ID	Paper ID	Title	Presented By
1	NL1	7	An Effective Approach for Detection of Sarcasm in Tweets	Sreelakshmi K
2	NL2	23	Dynamics of Semantic Networks of Independence Day Speeches	Prem Sankar C
3	NL3	100	Combination of Neural Networks and Conditional Random Fields for Efficient Resume Parsing	Ayishathahira C H
4	NL4	123	Dependency Parser for Malayalam: A Machine Learning Approach	Nayana R M
5	NL5	196	Eigen-analysis-based Document Summarization	Aswathy M R

## RESEARCH SESSION 12 : INTELLIGENT SYSTEMS (IS)

Time: 11.15 am – 1.00 pm  
Venue: PINE

Sl. No.	Session ID	Paper ID	Title	Presented By
1	IS1	43	Computer Aided Method for the Detection of Structural Abnormalities in Acute Lymphocytic Leukemia from the G-banded Karyotypes	Remya R S
2	IS2	69	A Combined Reward-Penalty loss Function Based Support Vector Machine	Pritam Anand
3	IS3	73	Analysis of Supervised Learning Techniques for Cost Effective Disease Prediction using Non-Clinical Parameters	Terry Jacob Mathew
4	IS4	185	A Framework for Intelligent Learning Assistant Platform based on Cognitive Computing for Children with Autism Spectrum Disorder	Akshay Vijayan
5	IS5	214	Machine Learning Based Intrusion Detection for Virtualized Infrastructures	Nimmy Krishnan
6	IS6	218	A.I for Games with High Branching Factor	Sabarinath Mohandas

### RESEARCH SESSION 13 : ELECTRICAL MACHINES (EM)

Time: 1.45 pm – 3.10 pm

Venue: MAPLE

Sl. No.	Session ID	Paper ID	Title	Presented By
1	EM1	125	Real Time Monitoring and Control of a Hybrid Bicycle- A Fuzzy Sliding Mode Approach	Sumesh Sankar
2	EM2	135	Inter Turn Fault Diagnosis in Wound Rotor Induction Machine Using Wavelet Transform	Athulya K
3	EM3	197	Power Quality Enhancement of VSI Fed Induction Motor Drive	Arya K
4	EM4	198	PWM Direct Torque Control of Induction Motor Drive with Reduced Torque Ripple	Gourikrishna
5	EM5	199	Design, Developement and Performace Analysis of Homopolar Inductor Pulsed Alternator	Vishnu Narayanan P M

### RESEARCH SESSION 14 : POWER ELECTRONICS (PE)

Time: 3.20 pm – 4.45 pm

Venue: MAPLE

Sl. No.	Session ID	Paper ID	Title	Presented By
1	PE1	6	Indirect Space Vector Modulated Matrix Converter	Arya S
2	PE2	21	A Photovoltaic System with Output Voltage Sensor Based MPPT with combination of SEPIC-CUK Converter	Ruveena Vincent
3	PE3	174	Performance Comparison of Multi-level Diode Clamped Inverter fed Surface Mounted PMSM Drive	G. Sree Lakshmi
4	PE4	209	IGBT based bridge type fault current limiter	Arathi T O
5	PE5	215	Design and Simulation of Microcontroller based Power Electronic Converter for Nuclear Research Application	Sandeep Sasidharan



## RESEARCH SESSION 15 : SPEECH PROCESSING (SP)

Time: 1.45 pm – 3.15 pm

Venue: EBONY

Sl. No.	Session ID	Paper ID	Title	Presented By
1	SP1	53	Power Efficient Speaker Verification Using Linear Predictive Coding on FPGA	Vijendra V
2	SP2	58	Performance Comparison of Different Cepstral Coefficients based Features for Recognition of Emotions from Speech Utterance	N S Sai Srinivas
3	SP3	170	Automatic Spotting of Vowels, Nasals and Approximants from Speech signals	Shinimol Salim
4	SP4	172	Speaker-Independent Japanese Isolated Word Automatic Speech Recognition System for a Moderate Size Vocabulary using TDRS Features	N S Sai Srinivas
5	SP5	212	I-Vectors for Forensic Automatic Speaker Recognition	Arathy Ajit

## RESEARCH SESSION 16 : IMAGE PROCESSING 2 (IP2)

Time: 3.30 pm – 5.00 pm

Venue: EBONY

Sl. No.	Session ID	Paper ID	Title	Presented By
1	IP1	30	Non Verbal Behaviour Analysis For Distress Detection	Priyanka Nair
2	IP2	31	Image Quality Measures Based Face Spoofing Detection Algorithm for Online Social Media	Theja J Jayan
3	IP3	115	An Efficient Approach to Recover CCTV Video from Proprietary DVR File System	Sandeepa S
4	IP4	186	Burning Zone Temperature Estimation of Rotary Kiln using Flame Image Analysis in Cement Plants	Shankar S S
5	IP5	204	High-Quality Image Scaling Using V-Model	Anju Sudhakaran

## RESEARCH SESSION 17 : SECURITY AND PRIVACY 1 (SPR1)

Time: 1.45 pm – 3.00 pm

Venue: PINE

Sl. No.	Session ID	Paper ID	Title	Presented By
1	SPR1.1	71	Secure Separable Reversible Data Hiding in Encrypted JPEG Bitstreams	Jooby E
2	SPR1.2	93	An Integrated Approach for Detecting Ransomware using Static and Dynamic Analysis	Daniel F Netto
3	SPR1.3	106	Towards Live Forensic Acquisition & Analysis of Mac OS Systems	Eby Prasad
4	SPR1.4	110	Key Encapsulation Mechanism based on RSA Public Key Distribution Algorithm in Modified Lorenz Hyperchaotic System	Farsana F J

## RESEARCH SESSION 18 : SECURITY AND PRIVACY 2 (SPR2)

Time: 3.15 pm – 4.30 pm

Venue: PINE

Sl. No.	Session ID	Paper ID	Title	Presented By
1	SPR2.1	121	Blockchain Based Security Framework for IoT Implementations	Navaneeth Krishnan K
2	SPR2.2	124	A New Hybrid Algorithm for Tolerating Security Threats in Wireless Sensor Networks	J.S Saji Kumar
3	SPR2.3	139	Spam Detection Framework for Online Reviews using Hadoop's Computational Capability	Lekshmi M B
4	SPR2.4	194	Block- wise Fragile Watermarking Schemes for Tamper Localization in Digital Images	Neena Raj N R

## DAY 3 (July 07, 2018)

### CONCLUDING SESSION

**Time: 09:30 am – 11.00 am**

**Venue: MAPLE**

Review and Feed back

**Dr. Jiji C V**

Principal  
College of Engineering Trivandrum

**Dr. Abdul Nizar M**

Organizing Secretary, IC4-2018

**Dr. Shree lekshmi R**

HoD, Computer Science and Engineering

**Dr. Usha Kumari S**

HoD, Electrical and Electronics

**Dr. Ciza Thomas**

HoD, Electronics and Communication

### VALEDICTORY FUNCTION