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# ICACC-2016

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Program Schedule



SEPTEMBER 6 TO 8, 2016  
RAJAGIRI SCHOOL OF ENGINEERING & TECHNOLOGY  
Kochi, Kerala

**6<sup>th</sup> September 2016 (Tuesday)**

**Venue: Bolgatty Palace and Island Resort, Kochi**

<https://www.google.co.in/maps/place/Bolgatty+Palace+and+Island+Resort+kochi/@9.9916623,76.2563109,14z/data=!4m5!3m4!1s0x0:0xfce7a976921f7af1!8m2!3d9.9842025!4d76.2672114>

09:30AM –	Registration	
10:00AM – 1:00PM	Pre-Conference Workshops	
	Performance Optimization Techniques for Large Multi-core Processors By Dr. John Jose, Dept. of Computer Science, Indian Institute of Technology, Guwahati. ( <a href="http://www.iitg.ac.in/johnjose/">http://www.iitg.ac.in/johnjose/</a> )	Beyond Homogeneous Data: Analytics for Spatial and Multi-view Data By Dr. Deepak Padmanabhan, Queen's University, Belfast, UK ( <a href="http://www.qub.ac.uk/">http://www.qub.ac.uk/</a> ), ( <a href="http://goo.gl/Bp0R8c">http://goo.gl/Bp0R8c</a> )
1:00PM – 2:00PM	LUNCH	
2:00PM – 3:00PM	Conference Keynote I: <a href="#">The (r)evolution of science: Big Data and Big Compute opportunities for smarter communities</a> By Prof. Mark Gahegan Director, Centre for eResearch, University of Auckland	
3:00PM – 5:00PM	BOAT CRUISE	
5:00PM – 5:30PM	ICACC Inaugural Event	
5:30PM – 7:00PM	Panel Discussion Smart Technologies for a Smarter City Panellists: Mr. Elias George IAS (KMRL/SmartCity), Mrs. Soumini Jain (Kochi Mayor), Prof. Mark Gahegan (UoA), Dr Nuddy Pillay (MIT, NZ), Mr. Sohan K. J. (Kochi Ex-Mayor), Mr Bajju George, CEO, SmartCity-Kochi, Dr. Suresh Nair (CTO, NeST) Moderator: Fr. Dr. Jaison Paul (RSET)	
6.30PM – 8:30PM	BANQUET DINNER	

## 7<sup>th</sup> September 2016 (Wednesday) – ICACC-2016

**Venue: Rajagiri School of Engineering & Technology (RSET), Kochi**

<https://www.google.co.in/maps/place/Rajagiri+School+of+Engineering+%26+Technology/@9.99332,76.358373,15z/data=!4m5!3m4!1s0x0:0x7f3ed8365cc944d7!8m2!3d9.99332!4d76.358373>

08:30AM –	Registration	
9:00AM – 9:40AM	Conference Keynote 2: <u><a href="#">Operators for Similarity Search</a></u> By Dr. Deepak Padmanabhan, Queen's University, Belfast, UK	
9:40AM- 10:20AM	Conference Keynote 3: <u><a href="#">RF Energy Harvesting for Internet of Things</a></u> By Prof. K. J. Vinoy, Electrical Communication Engineering, Indian Institute of Science	
10:20AM – 10:30AM	TEA BREAK	
<b>Technical Sessions</b>		
10:30AM – 11:30AM	<u><a href="#">Artificial Intelligence and High Performance Computing-1 (AIHPC-1)</a></u> Chair: Prof. Mark Gahegan, University of Auckland	<u><a href="#">Antenna &amp; High Frequency Design-1 (AHFD-1)</a></u> Chair: Prof. K. J. Vinoy, IISc, India
<b>Interactive Technical Sessions</b>		
11:30AM – 12:45PM	<u><a href="#">Artificial Intelligence and High Performance Computing-2 (AIHPC-2)</a></u> Chair: Dr. John Jose, IIT Guwahati, India	<u><a href="#">Antenna &amp; High Frequency Design-2 (AHFD-2)</a></u> Chair: Prof. C. K. Aanandan, CUSAT, India
12:45PM – 1:30PM	LUNCH	
1:30PM- 2:10PM	Conference Keynote 4 : <u><a href="#">Spectrum Sharing Initiatives in Unlicensed Bands: Advancements towards 5G</a></u> By Dr. Sayan Ray, Manukau Institute of Technology, New Zealand	
<b>Interactive Technical Sessions</b>		
2:15PM – 3:30PM	<u><a href="#">Secure and Reliable Systems-1 (SRS-1)</a></u> Chair: Dr. P Chitra, Thiyagarajar College of Engineering, India	<u><a href="#">Modelling &amp; Analysis of Communication Systems (MACS)</a></u> Chair: Prof. A Unnikrishnan, RSET, India
3:30PM – 4:00PM	TEA BREAK	
<b>Technical Sessions</b>		
4:00PM – 6:00PM	<u><a href="#">Secure and Reliable Systems-2 (SRS-2)</a></u> Chair: Fr. Dr. A. K. George, Amal Jyothi College of Engineering, India	<u><a href="#">Computer Architecture &amp; VLSI (CAVLSI)</a></u> Chair: Prof. Jayanthi V. S., RSET, India

## 8<sup>th</sup> September 2016 (Thursday) – ICACC-2016

Venue: Rajagiri School of Engineering & Technology (RSET), Kochi

<https://www.google.co.in/maps/place/Rajagiri+School+of+Engineering+%26+Technology/@9.99332,76.358373,15z/data=!4m5!3m4!1s0x0:0x7f3ed8365cc944d718m2!3d9.99332!4d76.358373>

08:30AM –	Registration	
9:00AM – 09:40AM	Conference Keynote 5: <u><a href="#">The Internet: Challenge, Opportunities, and Governance</a></u> By Dr. Rajakumar Murugesan, Taylors University, Kuala Lumpur, Malaysia	
09:40AM – 10:45AM	Interactive Technical Sessions	
	<u><a href="#">Image and Video Processing-1 (IVP-1)</a></u> Chair: Dr. Babitha R. Jose, CUSAT, India	<u><a href="#">Scientific and Engineering Computing (SEC)</a></u> Chair: Prof. K. S. Mathew, RSET, India
10:45AM – 11:15AM	TEA BREAK	
11:15AM – 12:15PM	Technical Sessions	
	<u><a href="#">Conference Theme - Smart Technologies (ST)</a></u> Chair: Dr. Samrat Mondal, IIT Patna	<u><a href="#">Signal Processing for Systems (SPS)</a></u> Chair: Dr. Vinu Thomas, Model Engineering College, CUSAT, India
12:15PM – 01:30PM	Interactive Technical Sessions	
	<u><a href="#">Image and Video Processing-2 (IVP-2)</a></u> Chair: Prof. Dominic Mathew, RSET, India	<u><a href="#">Signal Processing and Analytics (SPA)</a></u> Chair: Prof. Abraham Thomas, RSET, India
1:30PM – 2:30PM	LUNCH & VALEDICTORY	

## Venues at Rajagiri School of Engineering & Technology

7 <sup>th</sup> September 2016 (Thursday) – ICACC-2016		
Time	Multimedia Hall	Gallery Hall
9:00AM – 9:40AM	Conference Keynote 2	
9:40AM – 10:20AM	Conference Keynote 3	
10:30AM – 11:30AM	AIHPC-1	AHFD-1
11:30AM – 12:45PM	AIHPC-2	AHFD-2
1:30PM – 2:10PM	Conference Keynote 4	
2:15PM – 3:30PM	SRS-1	MACS
4:00PM – 6:00PM	SRS-2	CAVLSI

8 <sup>th</sup> September 2016 (Thursday) – ICACC-2016		
Time	Multimedia Hall	Gallery Hall
9:00AM – 09:40AM	Conference Keynote 5	
09:40AM – 10:45AM	SEC	IVP-1
11:15AM – 12:15PM	ST	SPS
12:15PM – 01:30PM	SPA	IVP-2

## The (r)evolution of science: Big Data and Big Compute opportunities for smarter communities

**Mark Gahegan**

Big Data is now firmly established as one of the major research computing challenges of our age. Despite all the marketing and hype, the fact is that the rate of data production in research and in many aspects of life is now outstripping the rate of improvement in storage technology. It is relatively simple to grasp the scary challenges that Big Data poses for IT infrastructure, where organizations cannot buy and commission new storage fast enough to keep up with demands. Some communities, such as radio astronomy and remote sensing, are already at the point where sensing platforms gather more data than can be stored; such data are only available for an instant and any analysis of the full datasets must happen at the moment of capture. At the human scale, the geographical, social and medical sciences stand poised to benefit from the ever-increasing volume of crowd-sourced data, and the deep and ubiquitous instrumenting of our environment and even of ourselves. These factors will bring us Big Data soon enough.

There is a growing awareness that Big Data can also lead to significant challenges for computing in terms of throughput and data volume. As researchers, many of our favorite analysis algorithms run well on desktop computers (and perhaps also on virtualized servers in the cloud). But scaling beyond these simple platforms is a challenge that as a community we are overdue to address, and which will otherwise deny us access to these rich new data resources.

## Operators for Similarity Search

Deepak Padmanabhan

With the growing variety of entities that have their presence on the web, increasingly sophisticated data representation and indexing mechanisms to retrieve relevant entities to a query are being devised. Though relatively less discussed, another dimension in retrieval that has recorded tremendous progress over the years has been the development of mechanisms to enhance expressivity in specifying information needs; this has been affected by the advancements in research on similarity operators. In this talk, we look at the vocabulary of similarity operators that has grown from just a set of two operators, top-k and skyline search, as it stood in the early 2000s. Today, there are efficient algorithms to process complicated needs such as finding the top-k customers for a product wherein the customers are to be sorted based on the rank of the chosen product in their preference list. Arguably due to the complexity in the specification of new operators such as the above, uptake of such similarity operators has been low even though emergence of complex entities such as social media profiles warrant significant expansion in query expressivity. This talk presents a survey the set of similarity operators and mechanisms to process them effectively. It may be observed that the importance of similarity search operators is immense in an era of when the web is populated with increasingly complex objects spanning the entire spectrum, though mostly pronounced in the social and e-commerce web.

## RF Energy Harvesting for Internet of Things

K.J. Vinoy

With the availability of low-power technologies for wireless and sensor modules, many exciting opportunities exist for developing medical and structural implants using these. A recent terminology “Internet of Things” refers a network of many such sensors with wireless nodes. These devices are interact with each other through unique addressing schemes, and cooperate with their neighbours to reach common goals. Although these devices need not monitor the environment continuously, they may require an internal control circuit to continuously keep track of their overall performance. One of the critical concerns in their deployment is meeting energy requirements through their life. Wall power or batteries may not be dependable in remote and/or reconfigurable operational scenarios. Batteries run out of energy in due course and may require recharging or replacement. Means for energy harvesting from multiple sources assumes significance in this context.

Energy sources typically preferred in practical solutions have high energy density. However there are niche situations when such forms of energy are not at all available. Low energy density radiations such as ambient RF signals from various broadcast and cellular towers have been found to be a convenient and widespread means of energy. Our recent efforts address combination of energy harvested from multiple resources for powering radio terminals.

This talk will explain electronics circuits developed by our group to harvest, store and efficiently utilize RF energy at different power levels. It may be noted that incorporating RF harvesting circuits into a universal energy harvesting platform enables intentional wireless power transfer to energize these device using an RF power transmitter. Yet, unlike classical experiments involving high powers, significant RF power is not available at the receiving units due to free space loss factor. Therefore, one of the major concerns in the low power energy transfer is the low efficiency of rectification and power management electronics. In general, the efficiency of these circuits is a function of the load and a high efficiency is possible only at high load impedances. Therefore, special challenges in designing circuits for driving a low power radio using a harvesting module will be discussed.



## Spectrum Sharing Initiatives in Unlicensed Bands: Advancements towards 5G

Dr. Sayan Ray

Increased demand in capacity and throughput, support for diversified use cases and the necessity to provide ubiquitous coverage are some of the important factors driving the evolution of 5th Generation (5G) wireless broadband networks. Mobile traffic has grown enormously over the last few years and recent research reports have speculated about a near eight-fold growth in global mobile data traffic by 2020. With the advent of the Internet of Things (IoT), it is expected that by 2020 the world will experience almost 50 billion connected devices. Provisioning for adequate spectrum is fundamental to meet this futuristic growth and being a scarce resource, efficiently utilising the available spectrum is essential. Since licensed spectrum is expensive and inadequate to meet the demands of 5G networks, cellular and other operators are eyeing to share and utilize the available bands in the unlicensed spectrum, which is predominated by license-exempt technologies, like WiFi. This talk will highlight the recent spectrum sharing advancements in the unlicensed bands, including new developments in Long Term Evolution (LTE) technologies and IoT technologies in the unlicensed spectrum. It will also provide an idea of some of the associated technical and non-technical challenges related to spectrum sharing in the unlicensed bands.

## The Internet: Challenge, Opportunities, and Governance

**Rajakumar Murugesan**

The Internet has become one of the biggest economy in the world that will be shaping the economy and society of the 21st century. Emerging new and smart technologies are shaping the landscape of possibilities as people and things become more connected to and through the Internet to each other. Demonstrating trends include the Internet of Things, Smart wearables, Smart Cars and Smart Cities. The ability to connect more people, things and engage them more meaningfully will continue to grow exponentially. The Internet brings enormous opportunities though there are concerns such as security and privacy risks that comes with it. The continued evolution of the Internet impacts difficult issues that needs to be addressed making Internet Governance significant and increasingly complex. This keynote will touch on Internet Governance, different perspectives, implications, complexity, and its importance in the future of the Internet, current work and possible ways forward.

## Artificial Intelligence and High Performance Computing-1 (AIHPC-1)

- ICACC\_652 Breaking HPC Barriers with the 56GbE Cloud  
**Muhammad Atifa, Rika Kobayashia, Benjamin J Menaduea, Ching Yeh Lina, Matthew Sandersona and Allan Williams**
- ICACC\_175 Predicting financial savings decisions using sigmoid function and information gain ratio  
**Mahalingam P.R and Vivek S**
- ICACC\_213 Generalized Regression Neural Network Based Wind Speed Prediction Model For Western Region Of India  
**Gaurav Kumar and Hasmat Malik**
- ICACC\_362 Reliability Prediction of Web Services using HMM and ANN models  
**Suhas Honamore, Kapil Dev and Ranjana Honmore**

## Artificial Intelligence and High Performance Computing-2 (AIHPC-2)

- ICACC\_59 Communication centric floor planning of NoC based System On Chip  
**Jyothi Thomas John, Nikhil Dahare, Budamagunta Chaithanya and John Reuben**
- ICACC\_150 Task Dependency Aware Selection (TDAS) in Cloud  
**Christina Terese Joseph and John Paul Martin**
- ICACC\_263 Hierarchical Clustering for Dynamic and Heterogeneous Internet of Things  
**J Sathish Kumar and Mukesh A Zaveri**
- ICACC\_333 A Novel Energy Efficient Multicasting Approach For Mesh NoCs  
**M.R. Arun, P.A. Jisha and John Jose**
- ICACC\_348 Scalable Information Gain Variant on Spark Cluster for Rapid Quantification of Microarray  
**Ransingh Biswajit Ray, Mukesh Kumar, Anand Tirkey and Santanu Kumar Rath**
- ICACC\_69 Website Analysis For Parental Control  
**Neenu Maria Joshya, Soumya George, Nancy K Augustine, Rosa Johnson and Christina Terese Joseph**
- ICACC\_460 An Efficient Buffer Management Policy for DTN  
**Sobin CC**
- ICACC\_515 Exploring the Efficacy of Branch and Bound Strategy for Scheduling Workflows on Heterogeneous Computing Systems  
**D.Sirisha and G.Vijayakumari**
- ICACC\_535 PT-BAR: Prioritized Thermo-Buffer based Adaptive Routing Protocol for Network-on-Chip  
**R.Suraj and P.Chitra**

- ICACC\_61 Rule Power Factor: A New Interest Measure in Associative Classification  
**Ochin, Suresh Kumar and Nisheeth Joshi**
- ICACC\_262 Analysing the Performance of a Flat Plate Solar Collector with Silver/Water Nano fluid Using Artificial Neural Network  
**Ashly Maria Tomy, Nizar Ahammed, M S P Subathra and Lazarus Godson Asirvatham**
- ICACC\_169 A Novel Machine Learning Approach For Bug Prediction  
**Shruthi Puranik, Pranav Deshpande and K Chandrasekaran**
- ICACC\_139 Application of Predictive Analytics in Intelligent Course Recommendation  
**Deepthi Upendran, Shiffon Chatterjee, Sindhumol S and Kamal Bijlani**
- ICACC\_531 Smart Autonomous Gardening Rover with Plant Recognition using Neural Networks  
**Sathiesh Kumar V, Gogul I, Deepan Raj M, Pragadesh S.K and Sarathkumar Sebastin J**

## Secure and Reliable Systems-1 (SRS-1)

- ICACC\_66 AMA: Static Code Analysis of Web Page For The Detection of Malicious Scripts  
**Prabhu Seshagiri, Anu Vazhayil and Padmamala Sriram**
- ICACC\_90 Computations on Cipher Speech for Secure Biometrics  
**Archana Dinesh and Edet Bijoy K**
- ICACC\_117 System Safety Analysis for Critical System Applications Using Bayesian Networks  
**Remya Prabhakaran, Krishnaprasad R, Manju Nanda and J. Jayanthi**
- ICACC\_189 Non-Deterministic Image Encryption Based on Symmetric Cryptosystem  
**B.Sri Gurubaran, N.Sasikala Devi, E.R.S.Subramanian and D.Geophilus**
- ICACC\_236 An Invisible Logo Watermarking Based on Arnold Transform  
**Saikrishna N and Resmipriya M G**
- ICACC\_312 Image Steganography Based on Complemented Message and Inverted bit LSB Substitution  
**Rupali Bhardwaj and Vaishali Sharma**
- ICACC\_332 Deriving Practical Applicability of Hierarchical Identity Based Encryption in Massively Multiplayer Online Role Playing Games  
**Renu Mary Daniel, Elijah Blessing Rajsingh and Salaja Silas**
- ICACC\_389 An UF-IBSS-CMA Protected Online/Offline Identity-based Short Signature Technique using PDL  
**Chandrashekhar Y. Meshram, P. L. Powar and Mohammad S. Obaidat**
- ICACC\_399 MobSecure: A Shoulder Surfing Safe Login Approach Implemented On Mobile Device  
**Nilesh Chakraborty, Gurpinder Singh Randhawa, Kuntal Das and Samrat Mondal**

- ICACC\_472 Hybrid Key Management Scheme for Secure AMI Communication  
**Nithin George, Nithin S and Sasi K. Kottayil**
- ICACC\_527 Web Services Attacks and Security- A Systematic Literature Review  
**Varsha R Mouli and KP Jevitha**
- ICACC\_539 Relating the embedding efficiency of LSB Steganography techniques in Spatial and Transform domains  
**P.Malathi and T.Gireeshkumar**
- ICACC\_546 A Web Service Reliability Prediction using HMM and Fuzzy Logic models  
**Suhas Honamorea and Santanu Kumar Rath**
- ICACC\_356 Modelling and Verification of CoAP over Routing Layer using SPIN Model Checker  
**Anchal J Vattakunnel, Suresh Kumar N and G Santhosh Kumar**

## Secure and Reliable Systems-2 (SRS-2)

- ICACC\_47 Improved Classical Cipher for Healthcare Applications  
**Maya Mohan, M. K. Kavithadevi and Jeevan Prakash V**
- ICACC\_60 Optimized Public Auditing and Data Dynamics for Data Storage Security in Cloud Computing  
**Anirudha Pratap Sing and Syam Kumar Pasupuleti**
- ICACC\_597 A Scalable Detection Technique for Real-time Transport Protocol (RTP) Flooding Attacks in VoIP Network  
**G.Vennila and MSK Manikandan**
- ICACC\_507 An IBE Technique using Partial Discrete Logarithm  
**Chandrashekhar Y. Meshram, P. L. Powar, Mohammad S. Obaidat and Cheng-Chi Lee**
- ICACC\_65 An Optimal (k,n) Visual Secret Sharing Scheme for Information Security  
**Mahmoud E. Hodeish and Linas Bukauskasb, Vikas T. Humbe**
- ICACC\_259 A Novel Approach for Speech Encryption: Zaslavsky Map as Pseudo Random Number Generator  
**Farsana F J and Gopakumar K**
- ICACC\_305 A Framework for Fast and Efficient Cyber Security Network Intrusion Detection using Apache Spark  
**Govind P Gupta and Manish Kulariya**
- ICACC\_195 Towards Improving Storage Cost and Security Features of Honeyword Based Approaches  
**Nilesh Chakraborty and Samrat Mondal**



## Image and Video Processing-1 (IVP-1)

- ICACC\_453 Blind Estimation of Single Look Side Scan Sonar Image from the Observation Model  
**Rithu James and Supriya M H**
- ICACC\_52 Daubechives Wavelet Based Face Recognition Using Modified LBP  
**Shivakumar Dalali and Suresh L**
- ICACC\_74 SIFT and Tensor Based Object Detection and Classification in Videos Using Deep Neural Networks  
**Najva N and Edet Bijoy K.**
- ICACC\_78 A Hybrid filtering approach of Digital Video Stabilization for UAV using Kalman and Low Pass filter  
**Lakshya Kejriwal and Indu Singh**
- ICACC\_89 Design and Implementation of High Speed Background Subtraction Algorithm for Moving Object Detection  
**Sunanda R. Hanchinamani, Sayantam Sarkar and Satish S Bhairannawar**
- ICACC\_102 Keypoint Extraction SURF Algorithm For CMFD  
**Reshma Raj and Niya Joseph**
- ICACC\_119 Image Registration of Satellite Images with Varying Illumination Level using HOG Descriptor based SURF  
**Manish I. Patel, Vishvjit K. Thakar and Shishir K. Shah**
- ICACC\_136 A study of different texture features based on local operator for benign-malignant mass classification  
**Rinku Rabidas, Abhishek Midya, Jayasree Chakraborty and Wasim Arif**
- ICACC\_224 Dimensionality Reduction using Band Selection Technique for Kernel based Hyper-spectral Image Classification  
**Reshma.R, V.Sowmya and K.P.Soman**

- ICACC\_229 An Improved Method for Handwritten Document Analysis using Segmentation, Baseline Recognition and Writing Pressure Detection  
**Abhishek Bal and Rajib Saha**
- ICACC\_244 Application of Least Square denoising to improve ADMM based Hyperspectral Image Classification  
**Srivatsa S, Aleena Ajay, Chandni C K, V Sowmya and Soman K P**
- ICACC\_249 MODIS-Aqua Data based Detection and Classification of Algal Blooms along the Coast of India using RLS Classifier  
**M Jocelyn Babu, P Geetha and K P Soman**

## Conference Theme - Smart Technologies (ST)

- ICACC\_58 Developing Smart Cities: An Integrated Framework  
**Joshi Sujata, Saxena Saksham, Godbole Tanvi and Shreya**
- ICACC\_274 Intelligent decision support system for dementia care through smart home  
**K.S.Gayathri and K.S.Easwarakumar**
- ICACC\_326 Fossil Fuel to Solar Power: A Sustainable Technical Design for Street Lighting in Fugar City, Nigeria  
**Nallapaneni Manoj Kumar, Anup Kumar Singh and K. Vinay Kumar Reddy**
- ICACC\_497 A study on Utilization of Polarimetric SAR Data in planning a Smart City  
**Kiran Dasari, Anjaneyulu Lokam and P.V. Jaysri**

## Image and Video Processing-2 (IVP-2)

- ICACC\_302 A Novel Approach To Improve Sobel Edge Detector  
**Neha Mathur, Shruti Mathur and Divya Mathur**
- ICACC\_367 Fractal Coding Using Gradient direction based Tag-Matrix and Score value  
**Sheeba K and Abdul Rahiman M**
- ICACC\_371 Statistical Parameter-based Automatic Liver Tumor Segmentation from Abdominal CT Scans: A Potential Radiomic Signature  
**Y. Rakesh Kumar, N. Moorthy Muthukrishnan, Abhishek Mahajan, P. Priyanka, G. Padmavathi, M. Nethra, R. Sneha and Meenakshi H Thakur**
- ICACC\_375 Automatic Facial Expression Recognition Using DCNN  
**Veena Mayya, Radhika M. Pai and Manohara Pai M. M.**
- ICACC\_410 A Secure & Invisible Image Watermarking Scheme Based on Wavelet Transform in HSI colour space  
**Maruturi Haribabu ,Ch. Hima Bindu and K. Veera Swamy**
- ICACC\_426 Text/Image Region Separation for Document Layout Detection of Old Document Images using Non-linear Diffusion and Level Set  
**Sachin Kumar S, Parvathy Rajendran, Prabakaran P, and K P Soman**
- ICACC\_465 A Modified frame difference method using correlation coefficient for background subtraction  
**P.Ramyaa, and R.Rajeswari**
- ICACC\_466 Automated Detection System for Diabetic Retinopathy Using Two Field Fundus Photography  
**Sharath Kumar P N, Deepak R U, Anuja Sathar, Sahasranamam V and Rajesh Kumar R**
- ICACC\_486  $\ell_1$  Trend Filter for Image Denoising  
**Sreelekshmy Selvin, S. G. Ajay, B. Ganga Gowri, V. Sowmya and K. P. Soman**

- ICACC\_487 Robust Face Recognition System in Video using Hybrid Scale Invariant Feature Transform  
**Mohanraj. V, Vimalkumar. M, Mithila. M and Vaidehi. V**
- ICACC\_557 Lossless color image compression using double level RCT in BBWCA  
**Shabila Beevi, Mariya Thomas, Madhu S. Nair and M. Wilscy**
- ICACC\_429 Palmprint Identification using Gabor and Wide Principal Line Features  
**Hemantha Kumar Kalluri and Munaga V. N. K. Prasad**
- ICACC\_202 Hand Gesture User Interface for Smart Devices Based On MEMS Sensors  
**Muhammad P and Anjana Devi S**

## Antenna & High Frequency Design-1 (AHFD-1)

- ICACC\_498 Design and Simulation of Radio Frequency Micro Electro Mechanical Capacitive Shunt switches  
**Aswathy G. Nair and E.S.Shajahan**
- ICACC\_517 Design and Development of an RF Energy Harvesting Wireless Sensor Node (EH-WSN) for Aerospace Applications  
**Bibin Varghese, Nidhin Easow John, S.Sreelal and Karthika Gopal**
- ICACC\_392 Synthesis of Highly Directive End-fire Arrays Using Modified Chebyshev Polynomials  
**Pavan R Shigehalli and Saumya Adhikari**
- ICACC\_620 Design and Comparison of Waveguide Windows  
**Latha Christie, and Sritama Dutta**

## Antenna & High Frequency Design-2 (AHFD-2)

- ICACC\_196 Triple band printed modified bow-tie antenna for RFID reader/ISM applications  
**Jibish Mathew, Manju Abraham and Thomaskutty Mathew**
- ICACC\_314 Broadband slot cut rectangular microstrip antenna  
**Amit A. Deshmukh, Divya Singh, Priyal Zaveri, Mohil Gala and K. P. Ray**
- ICACC\_315 Psi-shaped Ultra-wideband Monopole Antenna with a Modified Feeding Structure  
**Amit A. Deshmukh, Payal Mohadikar, Kshitij Lele, Gaurav Panchal and Adil Parvez**
- ICACC\_317 Triple band E-shaped Microstrip Antenna  
**Amit A. Deshmukh, Gaurav Panchal, Adil Parvez, Payal Mohadikar, Divya Singh and K. P. Ray**
- ICACC\_376 Meta-material Based Energy Harvester  
**Pranav U.S., Sudheesh S., Paul Stanly, Sonima Sankar, R. Devika and Anju Pradeep**
- ICACC\_414 A Novel J Slot Antenna for UWB WiMedia  
**M. Gopikrishna, Deepti Das Krishna, Gopakumar C, and C. K. Aanandan**
- ICACC\_538 Triple Frequency Notch in UWB Antenna with Single Ring SRR Loading  
**Anju A Chandran, and Shiney Thankachan**
- ICACC\_581 A Band-notched Ultra-wideband Compact Planar Monopole Antenna With U-shaped Parasitic Element  
**Bhushan V. Kadam, Lucy J. Gudino, Ramesha C K and Shamanth Nagaraju**
- ICACC\_633 Realization of Butlermatrix for Beamforming in Phased Array System  
**Jayakrishnan V M and Sreedevi K. Menon**

- ICACC\_606 Series SRR loaded UHF RFID Tag  
**Aju John.K.K, and Thomaskutty Mathew**
- ICACC\_621 Mode Matching Method for the Analysis of Cascaded Discontinuities in a Rectangular Waveguide  
**Latha Christie and Payel Mondal**
- ICACC\_478 Selective Interference Rejection based Antenna Selection for MIMO over LTE Advanced Networks  
**Ramachandran Vijayarani and Lakshmanan Nithyanandan**



## Modelling & Analysis of Communication Systems (MACS)

- ICACC\_22 Applications of Fixator-Norator Pair in Companion Model Based Designs  
**Rohith Krishnan R, S. Krishnakumar**
- ICACC\_35 Design, Simulation and Comparison of Mixing Schemes for DC, AC and Bidirectional Data through Coaxial Cable  
**Manoj G, Eldho Jacob and Sona O Kundukulam**
- ICACC\_50 Significance of a low noise preamplifier and filter stage for under water imaging applications  
**Manoj G, Sreedevi K and Vijay Gopal**
- ICACC\_125 Performance Analysis of Farrow Structure based FBMC-OQAM System  
**Meera K R, Job Chunkath, Sheeba V S and Geena Liz David**
- ICACC\_300 A Wavelet Multiplexing to Reduce Phase Noise Effects in OFDM based DVB-t  
**Govinda Raju M, A Satishkumar and Uma B V**
- ICACC\_470 Performance Analysis of Adaptive Clipping Technique for Reduction of PAPR in Alamouti Coded MIMO-OFDM Systems  
**Sadhana Singh and Arvind Kumar**
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