


**Conferences:**


9. Shari Mohan, P.R. Harikrishnan, V.R. Sajitha, **C. M. Nijas** and P. Mohanan “Chipless RFID Tag with SMD Inductors” International
Conference on Information Science 2014 (ICIS'14), July 4-5, 2014 at Cochin, Kerala, India.


Nijas C M  
Senior Research Fellow  
Department of Electronics  
Cochin University of Science and Technology  
Kerala, India  
Mobile: +91 9846236042,  
E-mail: nijasmhmmd@gmail.com.

<table>
<thead>
<tr>
<th>EXPERIENCE</th>
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<tbody>
<tr>
<td>• 6 years of research experience in Microwave Antennas, Antenna Arrays, Chipless RFID, Electromagnetics and Dielectric measurements.</td>
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<td>• International Publications – 16;</td>
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<td>• Proficiency in Design and Development of various types of Antennas, Antenna Arrays and Chipless RFID tags.</td>
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<td>• Proficiency in Microwave Material Characterization.</td>
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<tr>
<th>HONORS, AWARDS &amp; ACHIEVEMENTS</th>
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<tbody>
<tr>
<td>1. Awarded Junior Research Fellowship (JRF) in 2010 and qualified National Eligibility Test (NET) for lectureship by University Grants Commission (UGC), Government of India</td>
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<td>2. University Second Rank Holder in MSc. Electronics from Cochin University of Science and Technology, Cochin, India.</td>
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<td>3. Third Position in test conducted by Science and Engineering Research Board (SERB), Govt. of India, on Fundamentals of Radars for Atmospheric Research (FORFAR).</td>
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<th>AREAS OF INTEREST</th>
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<tr>
<td>Microwave Antennas, Active Antenna Arrays, Reconfigurable antennas, Implantable and Wearable antennas, Microwave Sensors, Biological effects of Microwaves, Chipless RFID, Filters, Microwave material characterization etc.</td>
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TECHNICAL SKILLS


2. Experience in Antenna and RF/Microwave circuit design tools like **Ansoft HFSS**, **CST MWS**, **Agilent ADS**, etc.

3. Developed **MIT Coffee Can Radar** at 2.4GHz.

4. Developed a **Chipless RFID reader** working in the frequency band of 2.36GHz to 2.54GHz.

5. Involved in the design and simulation analysis of **619 element Yagi Array for 207MHz ST RADAR**.

6. Involved in the design and development of **Glucose Sensor** design using Microwave technology.

7. Involved in the designing of various **ultra compact wide band uniplanar antennas** for multiband applications highly suitable for wireless gadget.

8. Involved in the design of **radiation hazardless antenna** suitable for mobile handset.

9. Experience in the **Microwave Material Characterisation** measurement using **the Cavity Perturbation Method**.


11. Experienced in working both industry and Government projects (Dieplexer, Wireless Power Transfer, Dielectric Measurements, etc.).
SCHOLARLY WORK AND SERVICES

1. Active participant and Member in the Organizing Committee of International Biennial Symposium on Antennas and Propagation Symposium (APSYM), from 2008 to 2014.
2. Active Member in the Organizing Committee of Biennial International Symposium on Ocean Electronics (SYMPOL) from 2009-2013.
3. Participated in Fundamentals of Radars for Atmospheric Research (FORFAR), course conducted by Science and Engineering Research Board (SERB), Govt. of India
4. Actively engaged in organizing various events and workshops.
5. Attended various National and International conferences and presented research papers.

WORK PROFILE

2011- Present:-

- PhD, “Design and Development of Compact Chipless RFID Tags with High Data Encoding Capacity”, at Centre for Research in Electromagnetics and Antennas (CREMA), Cochin University of Science and Technology, India.

Design and development of compact UWB chipless RFID tag for low cost application. Chipless RFID system consist of different microwave components like different resonators, compact UWB antennas and high gain antennas. Frequency and Time domain analysis of backscattered signals are carried out for decoding resonant information from the RFID tag. An RFID reader working in the ISM Band (2.4GHz) is developed and verified its working with 2 bits chipless RFID tag.
2010-2011:-

• Project Fellow, Design and Development of S Band Dielectric Diplexer for Space Application, it is a collaborative project with Cochin University of Science and Technology (CUSAT), Cochin, India and Vikram Sarabhai Space Centre (VSSC), Indian Space Research Organisation (ISRO), Thiruvananthapuram, India.

To replace existing S Band Diplexer with compact Diplexer using high dielectric resonators ($\varepsilon_r = 82$) for space application. A six cavity Diplexer is designed with magnetic coupling and the final product meets all the specifications given by the funding agency (ISRO). Compared to existing Diplexer, size reduction more than 50% is achieved.

2009-2010:-

• Intern, Wireless Power Transfer Project in Global Research Center at General Electricals (GE), Bangalore, India.

The project is for achieving Wireless Power Transfer for contactless charging in motor vehicles, rotating system and underwater equipment. Power level targeted is in the order of 10Watts to few Kilo Watts and distance requirement is about 1 to 10cm. Different resonators and antennas are designed and developed to obtain an efficiency of 80% at 200MHz.

### QUALIFICATION

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<tr>
<th>Course</th>
<th>Year of Passing</th>
<th>University</th>
<th>Institution</th>
<th>Class</th>
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<tbody>
<tr>
<td>Ph.D</td>
<td>Pursuing</td>
<td>Cochin University of Science and Technology (CUSAT), Cochin, Kerala, India</td>
<td>Department of Electronics, CUSAT, Kerala, India</td>
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<tr>
<td>M.Sc. Electronics</td>
<td>2007-2009</td>
<td>Cochin University of Science and Technology (CUSAT), Cochin, Kerala, India</td>
<td>Department of Electronics, CUSAT, Kerala, India</td>
<td>First class with Distinction CGPA 8.63 (2nd Rank)</td>
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<td>Date of birth  :  7th May 1987</td>
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<td>Sex            :  Male</td>
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<td>Languages Known:  English, Hindi, Malayalam and Tamil</td>
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<td>Nationality    :  Indian</td>
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<td>Marital status :  Unmarried</td>
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<td>Father’s Name  :  Mohammed Kunju V M</td>
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<td>Mother’s Name  :  Naseema A A</td>
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| Permanent Address :  Chakkanattu House  
|                  :  Vaduthala Jetty P O,  
|                  :  Arookutty, Alappuzha  
|                  :  Kerala, India 688535 |