

KARTHICK.M

Assistant Professor

Department of Electronics and Communication Engineering

Dhirajlal Gandhi College of Technology, Salem

Academic Qualification

Course	Institution	University/ Board	Year of passing	CGPA/ Percentage
M.E (Communication systems)	Sona College of Technology, Salem	Anna University, Chennai	2015	8.34
B.E(ECE)	Narasu's Sarathy Institute of Technology, Salem	Anna University, Chennai	2013	7.64
Diploma(ECE)	Thiagarajar Polytechnic College, Salem	Board of Technical Education	2010	96.5
SSLC	P.K.M.Govt.Hr.Sec. School, Salem	State Board	2007	89

Professional Work Experience

- Working as an **Assistant Professor** in the **Department of Electronics and Communication Engineering** in **Dhirajlal Gandhi College of Technology** from **01.06.2015** to **till date**.
- Undergone **Internship** in **ELDAAS technologies pvt. Ltd, Bangalore** from **03.01.2015** to **09.05.2015**.
 - **Role:** Junior RF design engineer

Projects

Title of M.E Thesis: 1. Design of multiband patch antenna for IRNSS and GAGAN applications

Description In this research work, a simple self similar multi fractal antenna is designed for IRNSS and GAGAN applications in India. A new navigational system which is developed and controlled by Indian government is called Indian Regional Navigational satellite system (IRNSS). A new augmentation system for India, erect over the GPS system is expected to provide continuous navigation support over the Asia-Pacific regions is called GPS Aided Geo Augmented Navigation system (GAGAN) which is under the total control of Airport Authority of India (AAI). This work describes a fractal cantor antenna on FR-4 substrate with the dielectric constant of 4.8 and the substrate height of about 1.6mm. These specifications should satisfied at the frequencies of L5 (1175 MHz), L1 (1575.42MHz) and S (2492.08MHz).

2. Design of 2.4GHz Patch Antennae for WLAN Applications

BE: Performance analysis of ring topology in optical backbone network.

DIPLOMA: Automatic Garden Maintenance

Areas of Interest

- Microstrip antennae
- Robotics

Academic Credentials

- As a part of eYantra's Task Based Training –TBT Challenge has done a task of **Order Taking Robot** and was **one of the top teams in India. (IIT, Bombay invited us as a special invite for their symposium which is going to be held on April, 2017).**
- As a part of **eYantra lab setup initiative by IIT Bombay** through **National Mission on Education through ICT (NMEICT)** and awarded grade **"A"** in **Task Based Training (TBT) 2016.**
- Attended **Indian Antenna Week 2016 (IAW)** workshop cum Conference in Thiagarajar College of Engineering, Madurai from 03.06.2016 to 09.06.2016.
- Guided students for the Competition **National Entrepreneurship Challenge 2015 (NEC)** organized by **E-cell, IIT Bombay and Positioned 9th place in India.**

Journal Publication:

- Paper titled **A CSRR loaded patch antenna for cognitive radio applications** published the *Journal of Circuits and Systems*, 2016, 7, 1476-1485.
- Published paper in "*International Journal of Advanced Engineering Applications*," on the title **Performance analysis of various network topologies used in optical backbone network**, Vol.3, Iss.4, pp.39-42.
- Published paper in "*African Journal of Science and Research*" on the title **Performance Analysis of Ring Topology in Optical Back Bone Network**, 2015,(4)1:26-29 ISSN: 2306-5877

International Conference Publication:

- Karthick, M., & Supriya, K. (2015, March). **Design of multiband fractal antenna for IRNSS and GAGAN applications.** In *Innovations in Information, Embedded and Communication Systems (ICIIECS), 2015 International Conference on* (pp. 1-4). IEEE.
- Karthick, M., & Kashwan, K. R. (2015, April). **Design of IRNSS receiver antennae for smart city applications in India.** In *Communication Technologies (GCCT), 2015 Global Conference on* (pp. 277-280). IEEE.

International Conference Accepted for Publication:

- Presented paper in *3rd IEEE International conference on Innovations in Information, Embedded and Communication Systems (ICIIECS'16)* held during 17th & 18th March 2016 on the title **Artificial neural network based character recognition approach for Tamil character**, IEEE-vol.3, 978-1-4673-8207-6, 2015.
- B.Mohanaruban, A.P.Jayamurugaraja, S.Santhosh, M.Karthick, **Portable 3-D Printing Fused Deposition Modelling**, *e-TIME 2016*, Vidya Vikas Engineering Institute of Engineering and Technology on April 12, 2016.

National Conference Publication:

- Paper titled **An Intelligent IRNSS Navigation System Based on Internet of Things (IoT) Platform** is presented in *Lamsys-2016*, organized by **Indian Space Research Organization (SHAR SDSC)**, Sriharikota from June 24, 2016 to June 25, 2016.
- Karthick, M. (2015, February), **Design of 2.4 GHz patch antennae for WLAN applications.** In *Computing, Communication and Information Systems (NCCCIS), 2015 IEEE Seventh National Conference on* (pp. 1-4). IEEE.
- Presented paper in *1st National conference on Emerging trends in communication systems (NCETCS-2016)* on the title "**Congestion control mechanisms for High speed networks in Wireless CDMA**", organized by Dhirajlal Gandhi College of Technology on 2nd April 2016.

Citations:

- Shankar, Rahul. "A Panacea for Defence Sector in Global Navigation System: IRNSS."

- Yashaswini, A. R., P. Siva Nagendra Reddy, and GN Kodanda Ramaiah. "Generation and implementation of IRNSS Standard Positioning Signal." *Engineering Science and Technology, an International Journal* (2016).

Citation indices from Google Scholar:

M Karthick
 Department of ECE, Dhirajlal Gandhi College of Technology
 Antenna Design, Robotics
 Verified email at dgct.ac.in
 My profile is public

Citation indices		All	Since 2011
Citations		2	2
h-index		1	1
i10-index		0	0

Title	Cited by	Year
Design of multiband fractal antenna for IRNSS and GAGAN applications M Karthick, K Supriya Innovations in Information, Embedded and Communication Systems (ICIIECS ...	2	2015
A CSRR Loaded Patch Antenna for Cognitive Radio Application S Venkatesh, M Karthick, K Supriya, AP Jayamurugaraja Circuits and Systems 7 (08), 1476		2016
Design of IRNSS receiver antennae for smart city applications in India M Karthick, KR Kashwan Communication Technologies (GCCT), 2015 Global Conference on, 277-280		2015
Design of 2.4 GHz patch antennae for WLAN applications M Karthick Computing, Communication and Information Systems (NCCIS), 2015 IEEE Seventh ...		2015

Add co-authors
 Dr. K. R. Kashwan, PhD + x

Co-authors Edit...
 No co-authors

Paper Presentation:

- Won **First Prize** in paper presentation in *iComET-14*, conducted by *Sona College of Technology* on the topic “**An alternative approach to hearing aid**” held on 30th April 2014.
- Won **Second Prize** in Techtalk of *iComET-14*, conducted by *Sona college of Technology* on the topic of “**Fin**” held on 30th April 2014.
- Participated in Paper Presentation of *FRACTALS’12*, held at *Sona College of Technology* on 16th February, 2012.

Project Presentation:

- Won **First Prize** in Project Presentation of *GYANDRA’11*, held at *Er.Perumal Manimegalai college of Engineering* on 29th January, 2011.
- Won **First Prize** in Project Presentation of *GALAXY’12*, held at *Institute of Road and Transport Technology* on 15th & 16th February, 2012.
- Won **Second Prize** in Project Presentation of *ADROIT’12*, held at *Tamilnadu college of Engineering* on 18th February, 2012.

Core Skills

- Advanced Design System(ADS)
- Ansoft HFSS
- Opti-System

Certifications/Workshops/ Seminar Participated

- Completed “**Computer Hardware maintenance & servicing**” at *CIICP*, Salem.
- Completed “**Networking and Administration**” at *CIICP*, Salem.
- Attended workshop on “**Network simulator 2 (NS2)**” organized by *Sona College of Technology*.
- Attended seminar on “**Recent issues in antenna design and testing**” organized by *Mepco Schlenk Engineering College* during 24th and 25th September 2013.
- Attended workshop on “**Introduction to Robotics**” organized by *IIT-Bombay* during 4th & 5th December 2015.
- Attended workshop on “**Signal& Image processing**” organized by Department of ECE - of *Sona College of Technology* during 4th & 5th December 2015.
- Attended seminar on “**Design of small satellite system**” organized by *Kongu Engineering College*, Erode.
- Attended FDP on “**Personal Effectiveness to organizational Excellence**” organized by *Knowledge Business School*, Salem on 31st January 2016.
- Attended One week FDTP on “**Demystifying Electronics system design**” organized by *ICET Pedagogy solutions*, Bangalore.
- Attended FDTP on “**Innovative methods in teaching**” organized by *WorldWide Education* during 4th – 6th January 2016.
- Attended **IESA Vision Summit 2016** in Bangalore during 3rd -4th February 2016.
- Attended **IOTNEXT 2016** in Bangalore during 9th – 10th November 2016.

(Karthick.M)