



## **Dr. B. SENTHIL MURUGAN**

Associate Professor

Electronics and Communication Engineering

Government College of Engineering, Dharmapuri

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### **PROFILE**

#### **Research Areas:**

Adaptive Signal Processing: Sparse System Identification, Echo Cancellation, Image Processing

PhD candidates

I have received Ph.D supervisor recognition in May 2023. I am guiding 2 Ph.d scholars

#### **EDUCATION:**

Ph.D. (Sparse System Identification), Anna University Chennai, July 2022.

M.E. (Applied Electronics), Anna University Chennai, 2012.

B.E. (Electronics and Communication Engineering), Sriram Engineering College, Madras  
University, 2000

#### **PROFESSIONAL EXPERIENCE**

Assistant Professor, Thanthai Periyar Government Institute of Technology, Vellore Since 2009

Lecturer, Government College of Engineering ,Salem from July 2006 Aug 2009  
Lecturer, Sriram Polytechnic, Veppampattu from sep 2001 to July 2006.

## TEACHING

### COURSES TAUGHT:

Signals and Systems (UG)  
Image Processing (UG)  
Circuit Theory. (UG)  
Communication Systems (UG)  
Advanced Communication Lab (UG)  
Communication Systems Lab (UG)  
Optical Communication (UG)  
Image Processing (PG)

## RESEARCH ACTIVITIES

## PUBLICATIONS

### Journal Papers:

- Boopalan, S.M., Alagala, S. & Ramalingam, A. A Memory Sparse Proportionate Affine Projection Algorithm for Echo Cancellation: Analysis and Simulations. *Arab J Sci Eng* **47**, 3367–3381 (2021). <https://doi.org/10.1007/s13369-021-06219-w>
- Sundaravanan Jothiprakasam and Senthil Murugan Boopalan (2021), An enhancement to lifetime of sensitive nodes for rare event detection in cluster based wireless sensor networks, International Journal of Information Technology and Electrical Engineering, Vol.10(4), 1-9
- Boopalan, S.M., Alagala, S. A New Affine Projection Algorithm with Adaptive  $l_0$ -norm Constraint for Block-Sparse System Identification. *Circuits Syst Signal Process* **42**, 1792–1807 (2022). <https://doi.org/10.1007/s00034-022-02197-y>

### Conference papers:

- Senthil Murugan Boopalan and R.S.D Wahida Banu, The impact of E-Governance on Indian Scenario, National Conference on software Engineering and applications, Codeclave 8.1, January 2008
- Senthil Murugan Boopalan (2012), Acoustic Feature Extraction from ECG signal for cardiac diagnosis, National conference on microwave & optical communication (NCMOC2012), ACCET, Karaikudi, Apr 2012

- Senthil Murugan Boopalan (2016), Intelligent Spectrum Sensing Implementation using Cognitive radio networks., International conference on Electrical, Electronics and Communication(ICEEC16), ACCET, Karaikudi, April 2016
- Senthil Murugan Boopalan (2019), Investigate the performance characteristics of RLS algorithm halfband FIR filter structure for wimax applications , National conference on wireless communication and signal processing(NCWCSP 19), Arunai Engineering College, Feb 2019.

## **OUTREACH ACTIVITIES**

### **Seminars/Workshop/FDPs/Conferences Organised**

Two-week ISTE workshop on Analog Electronics , NMEICT,MHRD during 4<sup>th</sup> to 14<sup>th</sup> June 2013, TPGIT,Vellore

Two-week STTP workshop on CMOS, Mixed Signal and Radio frequency VLSI design, NMEICT,MHRD during 30<sup>th</sup> Jan to 4<sup>th</sup> Feb 2017, TPGIT,Vellore

One day training for faculty on How to prepare and publish e-tender, July 2018, TPGIT, Vellore,.

### **Invited Talk:**

1. Signal and Systems, Adhiparasakthi College of Engineering, Kalavai, 20<sup>th</sup> Aug 2016.

## **ADMINISTRATIVE ACTIVITIES**

### **Institute Level**

Programme officer, Youth Red Cross Society, 2015 to 2021

Residential Tutor, Hostels, 2010 to 2012

Deputy warden Boys hostel, 2016 to May 2023

Associate Warden, Hostels ( May 2023 onwards)

College Canteen Incharge(2016 onwards)

Security personnel incharge (2021 onwards)

ICT coordinator (2022 onwards)

Member, ISTE (2022 onwards)

**Department Level**

Treasurer, ECE Association (2014 to 2023)

Faculty advisor , 2009-2013 batch

Faculty advisor, 2015-2019 batch

Faculty advisor, 2021