



SPECTRA - 2025

National Workshop on Radio Frequency Communication using Microcontrollers

DECEMBER 15-19, 2025



Register Here

15-12-2025

09:30AM	:- Inauguration
10:00 - 11:30AM	:- Session 1 "Basic Concepts of Electricity" (Shri. Anoop Mathew CEO, BOTZ)
11:30-11:45AM	:- Tea Break
11:45-01:15PM	:- Session 2 "Passive RF Components and Filter Design" (Shri. Riju Thazhathuveettil CEO, Technonics Research and Design Lab)
01:15-02:00PM	:- Lunch Break
02:00-03:30PM	:- Session 3 "RF Diodes and Rectifiers" (Shri. Aswin Gopinath Senior Embedded System Engineer BOTZ)
03:30-05:00PM	:- Session 4 "Transistors & Amplifiers for RF" (Shri. Anoop Mathew CEO, BOTZ)
09:30-11:00AM	16-12-2025 :- Session 5 "Indian Contributions in Radio Communications" (Dr. Thomaskutty Mathew, Associate Professor, GITAM University, Bangalore)
11:00-12:30PM	:- Session 6 "RF Resonators & Frequency Stability" (Shri. Riju Thazhathuveettil CEO, Technonics Research and Design Lab)

SCHEDULE

01:30-03:00PM :- **Session 7**
"Basics of Analog Communications" (Shri. Aswin Gopinath Senior Embedded System Engineer BOTZ)

03:30-04:30PM :- **Session 8**
"Basics of Microcontrollers" (Shri. Anoop Mathew CEO, BOTZ)

17-12-2025
09:30-11:00AM :- **Session 9**
"Pulse & Timing in Digital Communications" (Shri. Riju Thazhathuveettil CEO, Technonics Research and Design Lab)

12:30-01:30PM :- **Session 10**
"Digital Data Encoding" (Shri. Aswin Gopinath Senior Embedded System Engineer BOTZ)

01:30-03:00PM :- **Session 11**
"Microcontroller-based ASK System" (Shri. Anoop Mathew CEO, BOTZ)

03:00-04:30PM:- **Session 12**
"Data Framing & Error Handling" (Shri. Riju Thazhathuveettil CEO, Technonics Research and Design Lab)

18-12-2025
09:30-11:00AM :- **Session 13**
"RF Transmitter Design" (Shri. Aswin Gopinath Senior Embedded System Engineer BOTZ)

11:30-12:30PM :- **Session 14**
"RF Impedance Matching" (Shri. Anoop Mathew CEO, BOTZ)

01:30-03:00PM:- **Session 15**
"Antenna Fundamentals" (Shri. Riju Thazhathuveettil CEO, Technonics Research and Design Lab)

03:00-04:30PM:- **Session 16**
"RF Receivers Design" (Shri. Aswin Gopinath Senior Embedded System Engineer BOTZ)

19-12-2025
09:30-12:30PM :- **Session 17**
"Demodulation and signal Recovery" (Shri. Anoop Mathew CEO, BOTZ)

11:00-12:30PM :- **Session 18**
"PCB Design for RF Modules" (Shri. Riju Thazhathuveettil CEO, Technonics Research and Design Lab)

01:30-03:00PM :- **Session 19**
"Demo of Wireless transmitter" (Shri. Aswin Gopinath Senior Embedded System Engineer BOTZ)

03:00-04:50PM:- **Session 20**
"Final Integration"

04:00-05:00PM:- "Valedictory session"



LOCATION

In association with IQAC, Government College Mananthavady | Sponsored by Directorate of Collegiate Education, Government of Kerala

Co-ordinator

Dr. Sarin V P : 7561805443
HOD: Dr Rohith K Raj - 9447959305

Technical Committee

- Dr Limesh J
- Nitha Sebastian V
- Manisha E
- Shahana R V

Organized by the Department of Electronics,
Government College Mananthavady,
Wayanad, Kerala

Student co-ordinators

- Akhith A
- Lakshmi A K
- Ajay Sabu
- Anjana K K
- Afsal
- Harigovind K
- Yadhav K
- Anna Joshy