



SPECTRA - 2025

National Workshop on Radio Frequency Communication using Microcontrollers

DECEMBER 15-19, 2025



Register Here

SCHEDULE

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)

16-12-2025

09:30-11:00AM :- 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)

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 Linessh 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