Department of Electronics and Telecommunication Engineering in association with IETE Students' Forum and IETE Bhopal Centre organized an

Expert Talk
on
Design and Analysis of Microwave Device for 5G & Beyond Wireless Communications
By
Dr. Ramanand Sagar Sangam

(23 August 2025)

An Expert Talk on "**Design and Analysis of Microwave Device for 5G & Beyond Wireless Communications**" organized by the IETE Bhopal Chapter in collaboration with the Department of Electronics Engineering, MITS Gwalior, **on 23 August 2025**.

The event began with a welcome address by **Student Coordinator Akshra Shivhare**. Coordinator Akshra Shivhare then introduced **Dr. Ramanand Sagar Sangam** to the audience and invited him to commence the session.

Dr. Ramanand Sagar Sangam is an Assistant Professor in the Department of Electronics and Telecommunication Engineering at IIEST Shibpur. He earned his Ph.D. in RF & Microwave Engineering from IIT Guwahati, with research focused on RF, microwave, millimeter-wave, and terahertz components, especially filters and passive devices using SSPP, metamaterials, and tapered lines.

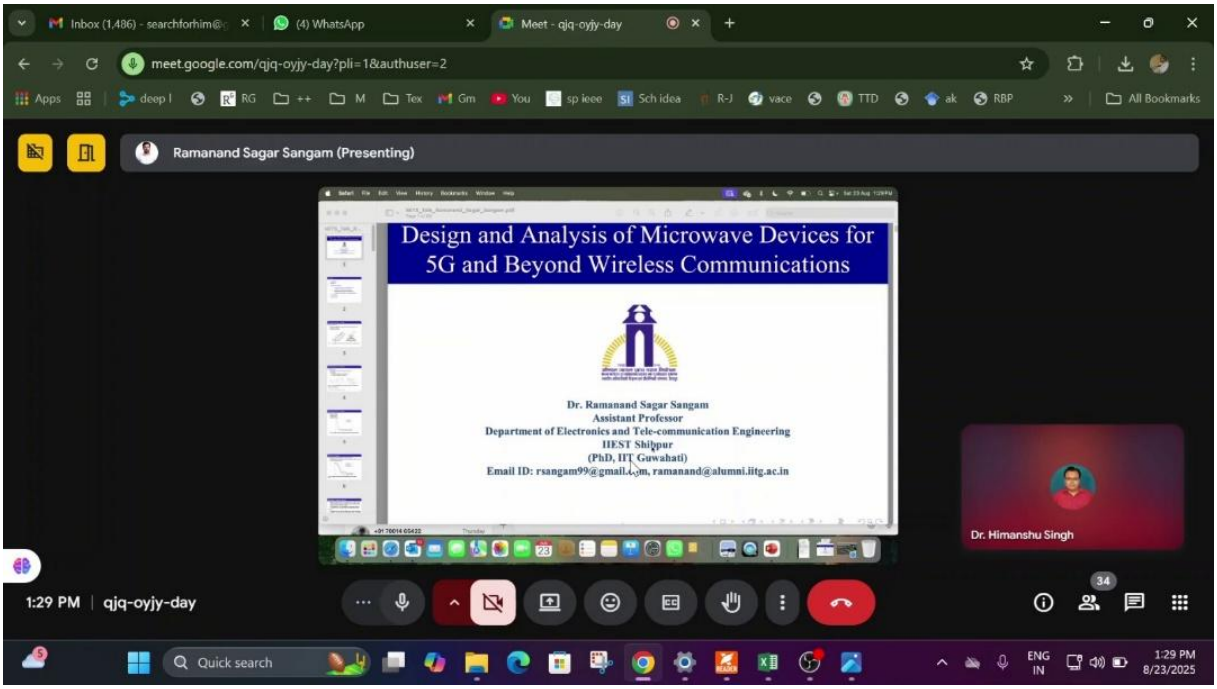
He holds an M.Tech in Microwaves from Burdwan University and completed a research project at CSIR-CEERI, Pilani. Previously, he taught at Amrita Vishwa Vidyapeetham and NIT Karnataka.

Dr. Sangam has published over **ten research papers** and reviews for top journals like IEEE and IET. He is also an invited speaker and a committed volunteer with interests in education and spirituality.
The session concluded with a **vote of thanks** delivered by **Dr. Himanshu Singh.**

This activity was coordinated by **Dr. Himanshu Singh** under the guidance of **Dr. Pramod Kumar Singhal** (Dean, Quality Assurance) and **Dr. Vandana Vikas Thakare** (Head of the Department, Electronics Engineering).

In total, more than 50 participants attended the talk via Google Meet. The event successfully fostered curiosity and enthusiasm for AI/ML career paths in both academia and industry, making it a memorable and enriching experience.

Glimpse of the expert talk by Dr. Ramanand Sagar Sangam



Ramanand Sagar Sangam (Presenting)

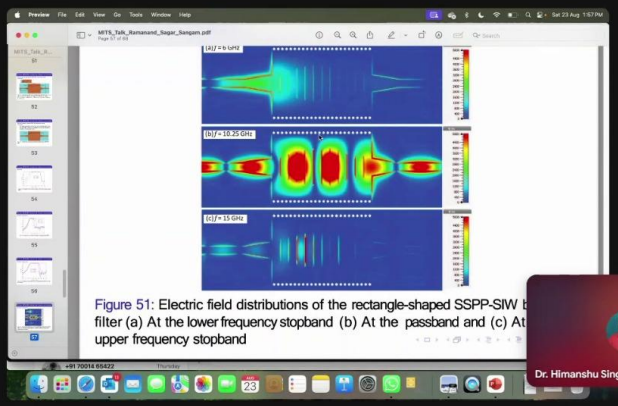


Figure 51: Electric field distributions of the rectangle-shaped SSPP-SIW b
filter (a) At the lower frequency stopband (b) At the passband and (c) At
upper frequency stopband

People

Add people

0901ET231032 KUSH BA...
0901ET231040 NIDHEE...
0901ET231047 PRAMO...
0901ET231048 PRAMO...
0901ET231050 PRIYANS...
0901ET231064 SHIV PRA...

Dr. Himanshu Singh

1:57 PM | qjq-oyjy-day

Ramanand Sagar Sangam (Presenting)

RESULTS CONTINUED:

- The filter exhibits a quasi-elliptic function filtering characteristic with 2 TZs closer to each side of passband to enhance selectivity and 1 TZ at the upper side to improve upper stopband attenuation and its BW
- The location of TZs can be controlled by varying the gap width

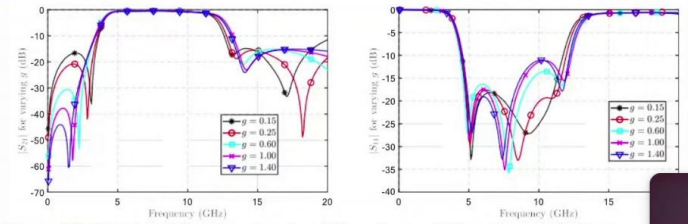


Figure 17: Simulated S-parameters for different gap widths *g* in mm (with open loop DGS on the ground)

Dr. Himanshu Singh

1:41 PM | qjq-oyjy-day

Ramanand Sagar Sangam (Presenting)

RESULTS CONTINUED:

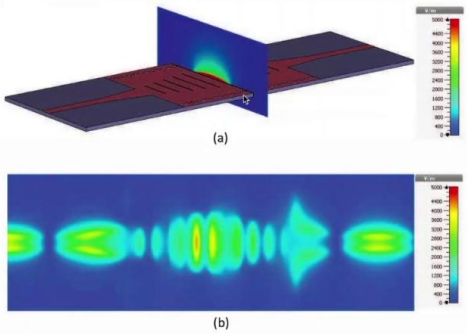


Figure 52: Electric field distributions of the rectangle-shaped SSPP-SIW bandpass filter (a) on the cross-sections at 10.25 GHz and (b) 0.5 mm above the top surface at 10.25 GHz

BTET24O1102 RAJEEV MALVIYA has raised a hand

Open queue

1:59 PM | qjq-oyjy-day

List of Attendees

1	PRIYANSHU PATEL	27	Kush bagora
2	Kartik Maheshwari	28	Satyam dubey
3	Gaurav Rawat	29	Priyanshi Sharma
4	Vansh Kirar	30	Utkarsh Katare
5	Neelkant Rathour	31	Adarsh Narwariya
6	Utkarsh Sanodiya	32	Akash Verma
7	Janvi Singh	33	VISHAL BAGHEL
8	Suraj Singh Narwariya	34	Shruti Vishwakarma
9	Kartik Krishana kushwah	35	Sachin Sharma
10	RAJEEV MALVIYA	36	Aditya Raj Sahu
11	Abhishek Verma	37	Aradhya Dixit
12	Harsh Thapak	38	NITIN JATAV
13	DIVYANSH SINGH	39	Mr. HARSH YADAV
14	Sourabh Patidar	40	MR INDRESH DHAKAD
15	Mohit Kumar kori	41	NITESH DHAKAD
16	Aman Dangi	42	Golu
17	Anish Malaiya	43	Khushi Dhakad
18	Aashay Sangam	44	Anshika Gupta
19	Ishan Jaiswal	45	Priyanshu Soni
20	Soham Subhedar	46	Pramod Kushwaha
21	Dileep Ahirwar	47	Himesh Gupta
22	Devdatt Singh	48	Arshad Khan
23	Rishiraj Sharma	49	Krishna Agrawal
24	ADITYA PRATAP SINGH BHADORIYA	50	ANKIT SINGH TOMAR
25	Mradul Garg	51	Hariom Vishwakarma
26	Riya Malik	52	Vinay Savita

53	Naman kumar Mishra	79	Shiv Pratap Singh Raghuvanshi
54	Mohd Rehan Qureshi	80	Pramod Shreewas
55	Lavkush Prajapati	81	Nagendra Singh Sikarwar
56	Kartik Kushwah		
57	Harsh Arya		
58	Prashant Atal		
59	Devdatt Singh		
60	Ankit Singh Parihar		
61	Kunal verma		
62	ARYAN CHOUHAN		
63	Dhanendra Vishwakarma		
64	Daya Sagar Mudgal		
65	Abhay Pratap Singh		
66	Anurag Singh Parihar		
67	Jay Nikhar		
68	SATWIK DUBEY		
69	Akash kushwah		
70	PARAS MAHOR		
71	Krishnjeet Yadav		
72	Prabhat Patel		
73	Krish soni		
74	Anurag Dangi		
75	UTKARSH SANODIYA		
76	ISHANT GARHEWAL		
77	ADITYA RUPCHAND DANGE		
78	Rashmi S. Tikar		

Dr. Himanshu Singh
(Faculty Coordinator)

Dr. Vandana Vikas Thakare
(Head of the Department)