



MGA News

Igniting the Waves: MTT-S Expands Its Horizon in Kolkata, the City of Joy

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Remarkable accomplishments are most often not borne out of a single monumental effort, but rather from the cumulative impact of numerous small endeavors. Just as individual droplets join forces to create the vast expanse of an ocean, it is the collective effect of these smaller steps that leads to the realization of the ultimate goal.



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In the context of expanding the activities of the IEEE Microwave Theory and Technology Society (MTT-S) in Region-10, particularly in India, significant strides have been made with the formation of multiple MTT-S Student Branch Chapters (SBC) across differ-

ent regions of India, in this particular case in Kolkata, popularly known as the *City of Joy* in West Bengal, India. These chapters were inaugurated with much fanfare and excitement over the last several months (Table 1).

These chapters stand as testament to the dedication, vision, and commitment of the MTT-S leadership, in particular the regional coordinator and other officers, and enthusiastic student members who have come together to cultivate an environment of learning, collaboration, and innovation. Through various activities and programs, these chapters aim to inspire and empower students, paving the way for a promising future in the field of microwave technologies and developing the next generation of technical leaders.

TABLE 1. Overview of newly inaugurated SBCs of the MTT-S.

College Name	Chapter Chair	Faculty Advisor
Institute Of Engineering and Management, Kolkata	Mr. Shrinjoy Chatterjee	Dr. Gobindo Sen
Heritage Institute of Technology, Kolkata	Mr. Aryan Basu	Dr. Sayantani Datta Dr. Soumya Chatterjee
Netaji Subhash Engineering College, Kolkata	Ms. Utsa Purkayastha	Dr. Koushik Dutta
University of Engineering and Management, Kolkata	Mr. Pratim Banerjee	Dr. Ayan Chatterjee

Institute of Engineering and Management, Kolkata, and University of Engineering and Management, Kolkata

MTT-S SBCs, the Institute of Engineering and Management (IEM), Kolkata and University of Engineering and Management (UEM), Kolkata embarked on their SBC journey on 10 April 2023 in the presence of MTT-S Member and Geographic Activities (MGA) Chair Dr. Goutam Chattopadhyay and MTT-S Region-10 Coordinator Dr. Chinmoy Saha. Also present was IEEE Kolkata Section Chair Dr. Iti Saha Mishra. The event started with brief comments from the visiting delegates and then the chapters were

formally inaugurated by Dr. Chattopadhyay and Dr. Saha. Also present at the ceremony were the chapter chairs Mr. Srinjoy Chatterjee (IEM Kolkata) and Pratim Banerjee (UEM Kolkata), faculty advisors Dr. Gobindo Sen (IEM Kolkata) and Dr. Ayan Chatterjee (UEM Kolkata), IEM Director and Vice Chancellor at UEM Dr. Satyajit Chakraborty, officers of the chapters (Argha Chatterjee, Satyam Choudhury, Emily Ghosh, Anjali Shaw, Sayed Rahaman, Rupayan Saha, Dhiraj Mahato, Aindrila Datta, Anik Pradhan, and Druhin Chakraborty), and faculty members and students from UEM, including Dr. Rajashree Paul and others (Figure 1).

The inaugural session was followed by an engaging panel discussion centered around the theme of “Opportunities in IEEE MTT-S: Education and Career Perspective for Students and Professionals.” It was moderated by the student members of the MTT-S IEM Chapter and featured visiting delegates as panelists. The panelists shared their insights and experiences while addressing the questions raised by the students and professionals attending the event. The discussion proved to be enlightening and interactive, effectively providing participants with a deeper understanding of the MTT-S and the diverse set of programs it offers.



Figure 1. Photos of some of the student members and chapter officers of MTT-S IEM SBC, along with the visiting delegates and dignitaries at the inaugural ceremony.



Figure 2. (a) Inauguration of the IEM MTT-S SBC and handing over a memento to the faculty advisor of the IEM MTT-S SBC. (b) The chapter chair receiving a certificate from the Region-10 Coordinator Dr. Chinmoy Saha.

In summary, the event served as an exceptional platform for students and professionals to expand their knowledge about the MTT-S and its various opportunities. The informative and engaging panel discussion left a lasting impact, offering valuable advice and perspectives to all of the attendees. The event witnessed a remarkable gathering of both IEM MTT-S and UEM MTT-S members, creating an atmosphere of collaboration and shared experiences. More than 200 MTT-S student members gathered for this occasion, a remarkable number and making these two colleges at the top of the list of highest

number of MTT-S student members (Figures 2 and 3).

Heritage Institute of Technology, Kolkata

The MTT-S Heritage Institute of Technology, Kolkata (HIT-K) SBC was officially inaugurated on 10 April 2023 at the Swami Vivekananda Auditorium, Heritage Institute of Technology in Kolkata, India. The event started with a traditional lamp lighting ceremony with Dr. Goutam Chattopadhyay, Dr. Chinmoy Saha, Dr. Mrinal Kanti Mandal (associate professor, Electronics and Electrical Communication

Engineering Department, Indian Institute of Technology, Kharagpur, India), Dr. K. N. Siddiqui (cardiologist, Ruby General Hospital, Kolkata, India), faculty members of the HIT-K, including Dr. Mousiki Kar and others, Chapter Chair Mr. Aryan Basu, faculty advisors Dr. Sayantini Dutta and Dr. Soumya Chatterjee, and other student members (Figure 4).

Mr. Aryan Basu (chair, MTT-S HIT-K SBC) gave a brief introduction about the chapter and introduced the guests to the audience. Following the introductory remarks, Mr. Aditya Sanyal (Member, MTT-S HITK SBC), presented



Figure 3. (a) Inauguration of the UEM MTT-S SBC. (b) The chairperson receiving a token of acknowledgment for his remarkable leadership and dedication.



Figure 4. (a) Members of the HIT-K SBC holding the banner. (b) Lamp lighting ceremony at the Swami Vivekananda Auditorium during inauguration, attended by chapter chairs, officers, faculty members, and students.



(a)



(b)

Figure 5. (a) Student volunteers of MTT-S SBC HITK with the dignitaries. (b) A photo from the panel discussion, which focused on the opportunities offered by the MTT-S programs to the students and young professionals, and how the students can get involved in volunteering and leadership roles.



(a)



(b)



(c)



(d)

Figure 6. (a) Handing over a memento to Dr. Goutam Chattopadhyay as a token of appreciation. (b) Handing over a memento to Dr. Chinmoy Saha as a token of appreciation. (c) Dr. Goutam Chattopadhyay delivering inaugural address. (d) A photo of the students along with the respected dignitaries.

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in exploring more about the Poincaré metric basics, visit the voyager article in [2].

The vertical pole in Figure 1 might be intended as a mathematical exercise. However, if we look at the inductor–resistor (LR) circuit shown in Figure 2, the pole becomes rather familiar to practical RF engineers. By sweeping the stimulus frequency from dc up until ωL reaches $R \tan \theta$, the circuit exhibits its input impedance moving along the pole. In particular, at the pole top, the impedance always touches the broken line of constant slope $\tan \theta$, which physically means an invariant Q factor or $\omega L/R$ [3], regardless of where the pole

stands on the horizon. For the simple circuit shown in Figure 2, we can conclude that the Poincaré length just reduces to its Q factor.

References

- [1] T. Ohira, "Horizontal line segment," *IEEE Microw. Mag.*, vol. 25, no. 5, pp. 177, May 2024, doi: [10.1109/MMM.2024.3365063](https://doi.org/10.1109/MMM.2024.3365063).
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an overview of the various activities of the chapter. The presentation highlighted the different initiatives and events that the group had organized and participated in, including workshops, seminars, and conferences. The main event of the day was a panel discussion on the topic "Opportunities in IEEE MTT-S: Education and Career Perspective for Students and Professionals."

The panel discussion was moderated by the student members of the MTT-S HIT-K SBC and included the visiting guests as panelists (Figure 5). The discussion focused on the opportunities offered by the MTT-S programs to the students and young professionals, and how the students can get involved in volunteering and leadership roles, and thus enhance their education and career prospects. The panelists shared their insights and personal experiences, specifically highlighting the scholarships, awards, publications, and various other programs MTT-S offers for the benefit of the student members.

Dr. Prabir Banerjee (department head of Electrical Communication Engineering, HIT-K) in his concluding remarks expressed his gratitude

to the guests for their participation in the event. He thanked them for sharing their knowledge and experience and the encouragement they provided to the student members to take advantage of the opportunities offered by the MTT-S. It was a pleasant evening with enthusiastic students mingling with MTT-S leadership and other faculties and guests and enjoying the spirit of volunteering.

Netaji Subhash Engineering College

The MTT-S SBC, Netaji Subhash Engineering College (NSEC), Kolkata, India held its inauguration ceremony on 11 April 2023 in the presence of Dr. Goutam Chattopadhyay, Dr. Chinmoy Saha, Prof. Nuno Borges Carvalho (MTT-S president, joined online), Prof. Debatosh Guha (Radio Physics and Electronics, Calcutta University, Kolkata, India), and Prof. Iti Saha Mishra (Jadavpur University, Kolkata, India).

The event began with an introduction of the visiting guests, followed by brief remarks. After some remarks by the college officials, the MTT-S SBC NSEC was formally inaugurated by the visiting guests (Figure 6).

For this occasion, the SBC organized a workshop. During this interactive part, the guests highlighted different MTT-S programs, such as student membership encouragement, planning technical events, and bridging the gap between practical and theoretical knowledge. Faculty members from the college Dr. Koushik Dutta, Prof. Bijoy Kantha, and Prof. Aparajita Dutta Sinha, and student members Anirban Chakroborty, Utsa Purkayastha, Ankita Ghatak, Siddhartha Roy, and Padmanabha Chakroborty were the key organizers of the event. The session was highly interactive, providing valuable insights and guidance while setting the stage for the MTT-S Chapter's future initiatives and events.

Overall, the inauguration ceremony of the MTT-S SBC at NSEC was a great event that brought together students, faculty, and MTT-S leadership in a forum where ideas were exchanged and future plans formalized. More than 100 students and other members attended the event, which showcased the enthusiasm among students about MTT-S activities.

