

EVENT REPORT

CASIF-2026: QUANTUM IGNITE

Powering the Next Industrial Shift

Submitted by: Dr. Sarfraz Hussain & Mr. Subhra Prakash Giri

Organized by: IEEE Circuits and Systems Society (CASS), Bangalore Chapter

In partnership with: IEEE Bangalore Section

Date: 29 August 2026

Venue: DoubleTree by Hilton Bengaluru – Whitefield, Bengaluru, Karnataka

Event Type: Full-Day Industry Forum

Theme: *Quantum Ignite – Powering the Next Industrial Shift*

1. Introduction

The IEEE Circuits and Systems Society (CASS) Bangalore Chapter organized **CASIF-2026: Quantum Ignite – Powering the Next Industrial Shift** on **29 August 2026** at **DoubleTree by Hilton Bengaluru – Whitefield**.

CASIF, the **CAS Industry Forum**, is a flagship initiative of the IEEE CASS Bangalore Chapter aimed at creating a strong interface between **industry, academia, research organizations, professionals, startups, and students**. The 2026 edition focused on the rapidly evolving field of **quantum computing and quantum technologies**, with particular emphasis on the transition of quantum computing from fundamental research toward industrial applications.

The forum brought together distinguished experts and professionals representing organizations and institutions including **Wipro, AMD, TCS Research, IBM Research, IISc Bangalore, QOSMIC Satellite Systems, Thales Group**, and the wider deep-technology ecosystem.

The event was designed as a single-track technical and industry forum consisting of keynote addresses, a technical talk, an expert panel discussion, career guidance, networking opportunities, and the **Quantum Ignite Challenge**.

2. Theme of CASIF-2026

The theme of CASIF-2026 was:

“Quantum Ignite – Powering the Next Industrial Shift”

The theme reflected the growing importance of quantum computing as an emerging technology with the potential to influence computing, optimization, logistics, finance, energy, communication, and other industrial domains.

Rather than viewing quantum computing exclusively as an academic research topic, CASIF-2026 sought to explore the practical question of how quantum technologies can progress from **research laboratories to real-world industrial deployment and strategic decision-making**.

The forum therefore provided a platform for discussing the technological, engineering, organizational, and workforce challenges associated with the adoption of quantum technologies.

3. Objectives of the Forum

The major objectives of CASIF-2026 were to:

- Create a common platform connecting industry professionals, researchers, academicians, startups, and students interested in quantum technologies.
- Explore emerging developments in quantum algorithms and their potential practical utility.
- Discuss hybrid classical-quantum computing architectures and quantum accelerators.
- Examine the opportunities and challenges associated with enterprise-scale quantum optimization.
- Understand the barriers currently limiting industrial adoption of quantum computing.
- Encourage collaboration between academia, industry, startups, and professional organizations.
- Provide students and young professionals with exposure to career opportunities in quantum computing and related deep-tech areas.
- Promote networking and knowledge exchange among experts from the semiconductor, computing, AI, and quantum technology ecosystems.
- Encourage participants to explore quantum concepts through interactive activities such as the Quantum Ignite Challenge.

4. Technical Focus Areas

CASIF-2026 covered three major technical tracks.

4.1 Quantum Algorithms and Utility

The first focus area examined **near-term quantum algorithms** and their potential application to practical problems.

Discussions around this theme focused on understanding where quantum algorithms may offer meaningful computational advantages and how the concept of “quantum advantage” should be evaluated in realistic applications.

4.2 Hybrid Architectures and Accelerators

The second focus area addressed **hybrid classical-quantum systems**, including quantum accelerators, middleware, and workflows required for integrating quantum resources with conventional computing infrastructure.

This area was particularly relevant to the engineering community because practical quantum computing systems are expected to operate alongside classical processors and accelerators rather than completely replacing conventional computing platforms.

4.3 Optimization at Enterprise Scale

The third focus area explored the application of quantum and quantum-inspired approaches to complex optimization problems.

Topics included **QUBO formulations, Ising models, optimization solvers**, and their potential applications in domains such as logistics, energy, and finance.

5. Inaugural Session

CASIF-2026 commenced with registration and participant interaction, followed by the formal inaugural ceremony.

The inaugural session included the welcome address, introduction to CASIF-2026, ceremonial lamp lighting, and opening remarks.

Chief Guest:

Dr. Manjunath Ramachandra Iyer

Principal Consultant, Wipro

Guest of Honour:

Mr. Siddesh HMR

Corporate Vice President, India Cores (CPU) Organization, AMD

The inaugural session established the context for the forum by highlighting the importance of industry-academia engagement in developing emerging technologies and preparing the engineering ecosystem for the next generation of computing technologies.

6. Keynote Address I

The first keynote address was delivered by:

Dr. Manjunath Ramachandra Iyer

Principal Consultant, Wipro

The keynote formed an important component of the morning technical programme and provided an industry-oriented perspective on the emerging quantum technology landscape.

The session contributed to the central objective of CASIF-2026: understanding how developments in quantum computing can progress beyond research demonstrations and become relevant to industrial applications and strategic technology planning.

7. Technical Talk

The technical talk was delivered by:

M. Girish Chandra

Distinguished Chief Scientist, TCS Research

The session provided participants with a deeper technical perspective related to the broader theme of quantum computing and emerging computational technologies.

The presence of a senior research leader from industry strengthened the forum's objective of connecting fundamental technological developments with industrial research and engineering requirements.

8. Expert Panel Discussion

One of the major highlights of CASIF-2026 was the expert panel discussion titled:

“From Ignition to Scale: What’s Holding Back Industrial Quantum Adoption — and How to Fix It”

The panel examined the technological and ecosystem-level challenges that must be addressed before quantum computing can achieve wider industrial adoption.

Moderator

Dr. Sumantra Sarkar

Sr. Manager, Silicon Design Engineering, AMD India

Panel Members

Dr. Rohit K. Ramakrishnan

Co-Founder & CTO, QOSMIC Satellite Systems Pvt. Ltd., Bengaluru

Dr. Anupama Ray

Senior Research Scientist & Technical Lead, AI + Quantum, IBM Research

Dr. Apoorva Patel

Emeritus Professor, IISc Bangalore

Subhra Kanti Das

Thales Group

The panel brought together perspectives spanning **quantum research, artificial intelligence, semiconductor engineering, industrial technology, startups, and advanced computing.**

The discussion provided an opportunity to examine the gap between the theoretical capabilities of quantum systems and the requirements of practical industrial deployment. It also highlighted the importance of collaboration among researchers, hardware developers, software developers, industries, startups, and academic institutions for building a sustainable quantum ecosystem.

9. Keynote Address II

The second keynote was delivered by:

Dr. Apoorva Patel

Emeritus Professor, Indian Institute of Science (IISc), Bangalore

Topic:

“Limitations of Quantum Advantage and Implications”

The session provided an important scientific perspective on the concept of quantum advantage.

The keynote encouraged participants to critically examine both the opportunities and limitations associated with quantum computing. Such an assessment is important for separating realistic technological possibilities from expectations surrounding emerging technologies.

The session complemented the industry-oriented discussions of the forum by providing a rigorous academic and scientific perspective.

10. Career Guidance Session

CASIF-2026 also incorporated a dedicated **Career Guidance Session** to support students and young professionals interested in emerging technology careers.

The interactive session was conducted with:

Vibhuti Prajapati

True Chip

The session provided an industry and human-resource perspective on career development and helped connect the technical discussions of the forum with opportunities for professional growth.

Including career guidance within CASIF-2026 broadened the impact of the programme beyond technical knowledge dissemination and supported the development of the next generation of engineers and researchers.

11. Quantum Ignite Challenge

An interactive **Quantum Ignite Challenge** was organized as part of CASIF-2026.

The activity was designed to encourage participant engagement with quantum concepts in an interactive and enjoyable format. The challenge complemented the keynote and panel sessions by introducing an activity-oriented component to the programme.

Prizes were incorporated into the challenge to encourage participation and create greater engagement among attendees.

The initiative demonstrated the forum's effort to combine serious technical discussions with innovative approaches to learning and participant interaction.

12. Special Delegates

CASIF-2026 was also attended by distinguished delegates, including:

Dr. Visweswara Rao Pasupuleti

Adjunct Professor, Taylor's University, Malaysia

Dr. Javed GS

King Consultants Education

Chair, IEEE CNAG Bangalore Chapter

Their participation contributed to the professional networking and interdisciplinary character of the forum.

13. Industry and Technical Participation

The CASIF-2026 ecosystem included technical expertise and participation associated with organizations and institutions such as:

- Wipro, Indian Institute of Science (IISc), TCS, AMD, IBM Research, QOSMIC Satellite Systems Pvt. Ltd., IEEE Bangalore Section

The participation of experts from major technology companies, research institutions, and startups provided CASIF-2026 with a strong industry-academia character.

This diversity was particularly important for the theme of quantum computing, where progress requires collaboration across fundamental science, semiconductor technology, computing architectures, software, algorithms, and industrial applications.

14. Target Audience

CASIF-2026 was designed for a diverse audience comprising:

- Students and research scholars
- Academic researchers and faculty members
- Industry professionals and engineers
- Quantum computing researchers
- Semiconductor and computing professionals
- Quantum and deep-tech startups
- Technology leaders and decision-makers
- IEEE members and volunteers

The diverse target audience supported interdisciplinary discussion and facilitated interaction between established experts and professionals entering the quantum technology domain.

15. Networking and Industry-Academia Interaction

Networking constituted an important component of CASIF-2026.

Dedicated interaction opportunities during the programme, particularly the networking lunch and discussions around technical sessions, enabled participants to engage directly with speakers, panellists, researchers, industry professionals, and fellow attendees.

Such interactions supported the broader CASIF objective of creating meaningful connections between **industrial challenges and academic/research solutions**.

The forum also provided opportunities for participants to understand emerging industrial requirements, explore potential collaborations, and discuss research and career opportunities.

16. Organizing Committee

CASIF-2026 was organized through the coordinated efforts of the IEEE CASS Bangalore Chapter volunteer leadership.

Advisor

Mr. Ayan Dutta

Senior Technologist, Sandisk

Steering Committee Members

Mr. Jayesh Tanwani – Design Manager, Intel

Mr. Kiran K R – Senior ASIC Methodology Engineer, Sandisk

General Chair

Dr. Sarfraz Hussain- Senior Assistant Professor, Amity University Bengaluru

Mr. Subhra Prakash Giri- Founder & CEO, SigWorks Research Lab

Technical Program Chairs

Dr. Sumantra Sarkar – AMD

Mr. Prabhavati P – CEO & Co-Founder, Skillsoc Technologies LLP

Industry Liaison Chair

Mr. Judge Kishan

Advanced Technical Leader, Aptiv

Academia Liaison Chair

Dr. Abdul Lateef Haroon P S

Associate Professor, Ballari Institute of Technology & Management

Finance Chair

Mr. Devendra Gowda

Assistant Professor, Acharya Institute of Technology

Publicity Chair

Ms. Brunda S Kotian

SoC DFT Engineer, Intel

17. Student Volunteer Team

The successful coordination of a professional event requires significant volunteer support. CASIF-2026 included a dedicated student volunteer team handling responsibilities such as registration, logistics, publicity material, website support, and anchoring.

The student volunteers included:

Afreen Fathima – Logistics & Poster

Vemana Institute of Technology, Bangalore

Mohammed Ibrahim – Registration

Vemana Institute of Technology, Bangalore

Nirmith Ajri – Website Design

Vemana Institute of Technology, Bangalore

Zaynah Waheed – MC / Anchor / Lead

Vemana Institute of Technology, Bangalore

V Punith Reddy – Registration & Logistics

Vemana Institute of Technology, Bangalore

Sonukumari R – Registration

Vemana Institute of Technology, Bangalore

The involvement of student volunteers also provided valuable exposure to IEEE professional activities, event management, teamwork, leadership, and interaction with industry experts.

18. Programme Schedule

Time	Session	Details
09:00 – 09:30 AM	Inauguration	Welcome address, introduction, lamp lighting, opening remarks Chief Guest: Mr. Siddesh HMR , Corporate Vice President, India Cores (CPU) Organization, AMD Announcement of Startup Conference: PRARAMBH Chief Guest: Dr. Manjunath Ramachandra Iyer , Principal Consultant, Wipro., Bengaluru
09:30 – 10:30 AM	Keynote 1	Dr. Manjunath Ramachandra Iyer , Principal Consultant, Wipro, Bengaluru
10:30 – 10:45 AM	Tea Break	Break
10:45 – 11:45 AM	Technical Talk	M. Girish Chandra , Distinguished Chief Scientist, TCS Research
11:45 – 12:45 PM	Panel Discussion	Moderator: Dr. Sumantra Sarkar , Sr. Manager, Silicon Design Engineering, AMD India · Panellists: Dr. Rohit K. Ramakrishnan , Co-Founder & CTO, QOSMIC Satellite Systems Pvt. Ltd.; Dr. Anupama Ray , Senior Research Scientist & Technical Lead, AI + Quantum, IBM Research; Dr. Apoorva Patel , Emeritus Professor, IISc Bangalore, Subhra Kanti Das , Thalesgroup
Group Photo		
12:45 – 01:45 PM	Lunch Break	Networking and informal discussions
01:45 – 02:45 PM	Keynote 2	Dr. Apoorva Patel , Emeritus Professor, IISc — Limitations of Quantum Advantage and Implications
02:45 – 03:00 PM	Career Guidance Session	Interactive Session with the HR: Vibhuti Prajapati , True Chip
03:00 – 03:15 PM	Tea Break	Break- HIGH TEA
03:15 – 03:30 PM	Quantum Workgroup	Workgroup on Quantum by Members of Tata Elxsi headed by Ravi Kiran
03:30 – 04:00 PM	Quantum Ignite Challenge	Activity and Prizes
04:00 – 04:30 PM	Valedictory & Closing Ceremony	Feedback, vote of thanks, Group Photo

19. Key Outcomes and Impact

CASIF-2026 provided a multidisciplinary platform for discussing the evolution of quantum computing from a research-oriented technology toward potential industrial applications.

The principal outcomes of the forum can be summarized as follows:

1. **Industry-Academia Interaction:** The forum connected researchers and academic experts with professionals from major technology organizations and startups.
2. **Awareness of Quantum Technologies:** Participants received exposure to quantum algorithms, hybrid architectures, optimization approaches, quantum advantage, and industrial adoption challenges.
3. **Balanced Perspective on Quantum Computing:** The combination of technical talks, industry perspectives, and discussions on the limitations of quantum advantage encouraged a realistic understanding of the technology.
4. **Cross-Domain Discussion:** Participation from experts in quantum computing, AI, semiconductor design, research, and advanced computing encouraged interdisciplinary knowledge exchange.
5. **Career Awareness:** The career guidance session provided students and young professionals with an opportunity to better understand emerging career pathways.
6. **Professional Networking:** Interaction among participants, speakers, panelists, delegates, and IEEE volunteers created opportunities for future technical and professional collaborations.
7. **Student Engagement:** The Quantum Ignite Challenge and volunteer activities provided opportunities for students to participate actively rather than functioning only as passive attendees.
8. **Strengthening the IEEE CASS Ecosystem:** CASIF-2026 reinforced the role of the IEEE CASS Bangalore Chapter as a platform connecting circuits-and-systems professionals with emerging areas such as quantum computing.

20. Conclusion

CASIF-2026: Quantum Ignite – Powering the Next Industrial Shift represented an important initiative by the IEEE Circuits and Systems Society Bangalore Chapter to bring the conversation on quantum computing closer to industry, academia, students, researchers, and the wider technology community.

Through keynote addresses, a technical talk, an expert panel discussion, career guidance, networking, and the Quantum Ignite Challenge, the forum addressed quantum computing from multiple perspectives—from algorithms and scientific fundamentals to computing architectures, industrial adoption, workforce development, and enterprise applications.

The participation of experts representing leading industries, research organizations, academic institutions, and startups strengthened the industry-academia character of the programme.

CASIF-2026 further demonstrated the importance of IEEE professional forums in creating an ecosystem where **research knowledge, engineering expertise, industrial challenges, emerging talent, and innovation can converge**.

The event concluded with the valedictory session, participant feedback, vote of thanks, and group photograph, marking the completion of a full day dedicated to exploring the possibilities and practical realities of the emerging quantum technology landscape.

Event Webpage

Official CASIF-2026 webpage:

<https://cas.ieeebangalore.org/casif2026/>

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Theme:

Quantum Ignite – Powering the Next Industrial Shift