Prof. T. G. SITHARAM (DOB: 17th May 1961)

Visionary Engineer | Institution Builder | Policy Transformer
Chairman, AICTE | Former Director, IIT Guwahati | Professor, IISc Bangalore

Expert in Policy making, education, Skill, Research & Innovation, Industry collaboration & Innovation, Administration,

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PROFILE

Visionary academic leader with 35+ years shaping technical education, skilling, research, and innovation. Architect of scalable, tech-integrated models. Spearheaded NEP 2020 reforms, industry partnerships, and national projects. Established Centers of Excellence in AI, drones, cybersecurity, and emerging tech, transforming institutions and impacting millions through grassroots and digital initiatives.

With over four decades of pioneering contributions in civil and geotechnical engineering, infrastructure development, and technical education policy, Prof. T. G. Sitharam blends scientific depth with nation-building foresight. He is ranked among the top 2% of scientists globally (Stanford) and is recognized as a rare leader who bridges academia, government, and community innovation. His leadership in projects like the Ram Temple foundation, Chenab Bridge, and Sarovar Mala demonstrates how engineering, tradition, and ecology can harmonize for sustainable growth.

Involved in prestigious national projects (in more than 150 consulting projects) and most importantly:

Landmark Contributions

Shri Ram Temple Foundation – Engineering Dharma

- Personally led the redesign of the temple's foundation during COVID-19.
- Proposed a scientifically sound, geotechnically stable design.
- Publicly recognized by sri. Champat Rai, General Secretary of Shri Ram Janmabhoomi Teerth Kshetra, for his unique solution.

Chenab Bridge – Defying Gravity & Seismic Risk

- World's highest railway arch bridge; worked for **17 years** on slope stability and abutments.
- Innovated a **"design as you go"** methodology in fragile terrain.
- Ensured safety in high seismic zones; built in record time.

Project Sarovar Mala – Patented Water Revolution

- Conceived a network model linking tanks and lakes like a "mala" (garland).
- Patent Approved- eco-adaptive system for flood control, water security, and ecological revival.
- Aligns with Jal Shakti Mission and climate-resilient development.

Seismic microzonation projects
- for city of Bangalore, Lucknow, NER, Sikkim and NCR Delhi

Design of Large tailing dams, Ash ponds, red mud ponds and water holding Dams.

Created 3 startups at IISc and one of them has expanded to four countries with more than 150 personnel (Director, SGES Pvt Ltd, 2007-2019).

As a talent catalyst, addressed more than a million students through graduation ceremonies, convocation addresses, NEP workshops, etc. as Chief guest/Guest of Honor and motivated several lakhs of young students on skilling, upskilling and reskilling with emphasis on future skills including AI, generative AI and Agentic AI.

As Chairman of AICTE groomed, guided, and empowered teams and built leadership pipelines to achieve Vikasit Bharat goals.

Laid the foundations and established an AI Lab to serve as a marquee lighthouse for institutions that are struggling with AI.

STRATEGIC ROLE ALIGNMENT IN EDUCATION SECTOR

Key Areas	Demonstrated Excellence
Skilling Ecosystems	*Integration of 20% skill-based training in AICTE curriculum; Championed Industry 4.0 readiness and enabled digital skilling for 1M+ learners..*
Upskilling & Reskilling	Rolled out training in AI, ML, robotics, blockchain, quantum computing. Built multilingual rural/tribal job placement platforms.
Global Workforce Readiness	Initiated global collaborations and industry-aligned skills; designed curriculum for Job readiness (language + domain skills). Enabled global collaborations.
Digital Platforms	Rolled out placement portals, e-learning libraries through National Education Alliance for Technologies (NEAT), AI-enabled courses, and e-training platforms through AICTE and skill partners.
Policy & Governance	Led NEP 2020 roll-out in technical education; emphasis on regional language textbooks; Pioneered equitable expansion policy aligned to GER goals.

Key Areas	Demonstrated Excellence
Public-Private Partnerships	Mobilized ₹650+ Cr in philanthropy for IIT Guwahati; enabled CSR-backed and industry-led training schemes at AICTE.
Quality Assurance	Through AICTE, implemented Margdarshan mentoring, NBA/NIRF standards as part of the Board, accreditation drives for 600+ institutions.
Innovation Ecosystems	Established AICTE Innovation & Research and development Cells across 14000+ institutes, 70+ CoEs, funded 500+ innovations; launched Smart India Hackathon and created 425 Idea Labs and IPR pipelines
Inclusion & Equity	'Initiated tribal and women-centric skilling, AI-based vernacular platforms, and equitable funding support through scholarships for girls.
NCVET – Vocational education	Co-Authored a document in Green skilling and opportunities with NCVET. Developed guidelines for Apprenticeship embedded Degree programmes. Developed working professional programme in engineering colleges

LEADERSHIP IMPACT

International:

- Appeared in Top 2% scientists listed by Stanford consecutively for the last six years Ranked 6th in Earth Sciences in India and 193rd overall in world (AD Scientific Index).
- Served as Visiting Professor in Canada, USA, Australia, China, Hongkong, Japan

AICTE Chairman (2022–Present) - **Education Reforms**:

- **Skilling Initiatives**:
  - Enforced **20% skilling integration** in engineering/tech courses via AICTE-NCVET resolution.
  - Initiated a **digital upskilling campaign** targeting 1 crore+ students & faculty.
  - Guided **National education Alliance for Technology (NEAT)** and on boarded many Edu tech complains to offer skill courses.

- **Employment & Placement**:
  - Launched India's first **multilingual rural & tribal placement portal** and career portal connecting 600K villages to 2,000+ industries.
  - Enabled job matching through AI algorithms to reduce urban-rural disparities.

- **Innovation & Startups**:
  - Established **AICTE Innovation, Research & Start-up Cell** to nurture entrepreneurial culture across 3,000+ institutions. Creation of 13

Innovation centers in 13 cities, IPR popularization and patent filing promotion through KAPILA scheme at AICTE

- o Created 70+ **Centres of Excellence in Emerging Technologies** (AI, Robotics, Blockchain, Quantum Computing, Bio-Tech).
- o Rolled out 425+ **Idea Labs**, supported 500+ student/faculty-led innovations and IPs.
- o Coordinated India's largest **Smart India Hackathon** and **Design Thinking & Entrepreneurship Boot camps. Coordinated a network of**. Venture fund to support student startups
- o Laid the foundations and established an AI Lab to serve as a marquee lighthouse for institutions that are struggling with AI.
- **Faculty & Student Development**:
  - o Rolled out **platform** to train 1 lakh+ faculty in pedagogy, digital tools, and NEP implementation.
- **Institute Development:**
  - o Launched **Margdarshan Scheme (2023–24)**: Mentorship by IITs/IIITs to rural institutes - Enabled UG/diploma textbooks in Hindi + 13 languages via AICTE e-Kumbh. - Advocated for **seat-cap reforms** under NEP-2020 to boost access
- **Inclusivity & Financial Support**:
  - o Rolled out **'Saraswati' and 'Yashasvini' scholarships** for women from disadvantaged groups. Initiated Productization fellowships for groups of innovators and Industry fellowships for teachers.
  - o Created **merit-based innovation funding for startups** across AICTE institutions.

Director, IIT Guwahati (2019–2022) –

- **Raised ₹650 Cr+ external funds**; A testimony to standards achieved.

- Elevated IITG's QS World Ranking - improved to 395. – Established new 5 multidisciplinary schools, 4 research centres. – establishment of post-graduate medical schools and Hospital

- **Chairman and Direc**tor of **IITG Innovation & Startup Hub**: 50+ startups, 20+ industry alliances. Taken IITG to top rank institute in QS world ranking in Citation per faculty.

- **Chairman, Board of Governors (2019-2020),** IIT Guwahati and Chairman, Finance Committee IIT Guwahati 2019-2020.

- **Chairman, Board of Governors, CIT Kokrajhar, Assam (2020-2021)** and Chairman, Finance committee, CITK.

- **Chairman, Board of Management,** North Eastern Regional Institute of Science and Technology (NERIST), Nirjuli, Arunachalapradesh – 2021

- **Chairman, Research Council, CSIR-CBRI** (Central Building Research Institute), Roorkee 2019-2020.

- **Founding Chairman, Center for infrastructure, Sustainable Transport and Urban Planning (CiSTUP),** IISc, Bangalore 2009-2014 – Established this center at IISc in collaboration with Govt of Karnataka, Started Research, M Tech and PhD programmes in Transportation and Infrastructure engineering with emphasis to train officers from BMTC, KSRTC and DULT of Govt of Karnataka.

Professor, Indian Institute of Science (IISc) Bangalore (1994–Present) –

- Guided 40+ PhDs, published 500+ papers, authored 25 books, secured 5 patents.

- Completed over 125 consulting projects; trained 30+ postdoctoral researchers. - Developed India-specific seismic microzonation frameworks adopted by NDMA – Created a guideline document for Seismic Microzonation for NDMA.

- Founded 3 startups; **one scaled globally (150+ employees, presence in 4 countries).**

- KSSIDC Chair Professor in the area of Energy and Mechanical Sciences, IISc, Bengaluru (2015-2018)

NATIONAL CONTRIBUTIONS & BOARD MEMBERSHIPS

- Chairman, IIT Guwahati research Park a section 8 company and Assam Advanced Healthcare Innovation Institute (AAHII) - a Research and Innovation Institute in the area of medical sciences which includes a 500-bedded 'Connected' Multi-Specialty Hospital spread over 12 Acre land in the existing IIT Guwahati campus

- **Chairman, Executive committee**, Visweswaraya Industrial and Technological Museum (VITM), NCSM, Ministry of Culture 2016-2022.

- **Member, National council of Science Museums(NCSM)**, Ministry of Culture- 2016-present

- Memberships: **SERB (2019-2022)**, IOE committee, NASSCOM Future Skills, DST, IITG Research Park, Anuvadini Foundation (section 8 Companies)

- Member of Board of Governors/EC of Central Power Research Institute, Bureau of Indian Standards (BIS), NIT Meghalaya; NIT Tripura; IIEST, Shibpur, Kolkata.

- Member of many selection committees for directors, VC selections across CFTIs, IITs, NITs, IIM's and CSIR

- Senior Advisor to the BRICS Chamber of Commerce & Industry

DISTINCTIONS & HONOURS

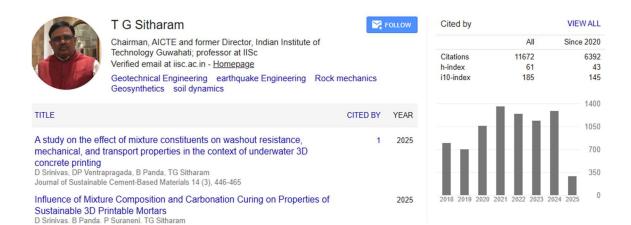- **Fellow:** INAE, ASCE (USA), ICE (UK), IGS, ISTE, ISET

- **Editorial:** International Journal of Geotechnical Engineering (IJGEE) USA and Chief Editor; Springer Civil & Environmental Book Series, Singapore. Editorial board member of many prestigious Journals in India and Abroad.
- **Visiting Professorship:** Canada- University of Waterloo; University of Dalhousie; Japan: Yamaguchi University; China: Hong kong; Australia-University of Wollongong, USA: university of Texas at Austin, TX
- **President** of Indian Society for Earthquake Technology (ISET) for two terms
- **President:** International Society for Coastal Reservoir Research for five years
- **Recipient:**
  - Sir M. Visvesvaraya Lifetime Achievement Award 2023 and
  - Sir C.V. Raman Award from Govt of Karnataka, 2002
- Keynote speaker in 20+ countries.
- Advisor to UN-affiliated bodies.
- IGS-Kueckelmann Award, S.P. Research Award, Prof. Gopal Ranjan Research Award, ISTE award, Institution of Engineer's award, Many best paper awards
- Appeared in Top 2% scientists listed by Stanford consecutively for the last six years Ranked 6th in Earth Sciences in India and 193rd overall in world (AD Scientific Index).

EDUCATION

- Ph.D.-Civil Engineering – University of Waterloo, Canada (1987-1991)
- M.Sc (Engg) – Indian Institute of Science, Bangalore (1984-86)
- B.E. Civil Engg – Govt. BDT College of Engineering, Davanagere (Univ. of Mysore) -First class with distinction) (1978-1983)
- Postdoctoral Scientist – University of Texas, Austin, Texas, USA, (1991-94)
- D.Sc. (Honoris Causa) – Vel Tech University (2023) and JNTU Hyderabad (2025) for exceptional contributions to Geotechnical and Infrastructure Engineering

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PUBLICATIONS AND BOOKS: 500+ publications in Journals and conferences; 55 Books (text books 20, edited books of conference proceedings -30, etc.):
Recent Books on AI and Education:

1. The Road Ahead 2.0, 750 pages, Education world, 2024 by prof. T G Sitharam and Yogesh Kochhar, (2 volumes: ISBN 978-93-341-9461-6 & ISBN NO-978-93-341-9750-1

2. Unlocking the potential of Technical education to shape India's Future – Fueling Innovation, Growth and Inclusion by Prof. T G Sitharam, ISBN 978-93-6194-306-5

3. Book "Empowering Minds the Transformation of IIT Guwahati" by Prof. T. G. Sitharam

• **Impact:** Prof Sitharam has secured 193 rank in India and 11250 in the world for the category in engineering and technology, and, in earth science his rank is 6 in India and 956 in the world- AD scientific Index. AD scientific Index analyses data from 2448388 scientists and 24477 institutions across 13 major academic fields and 197 disciplines covering 221 countries, making it one of the most extensive sample based studies in its field.

SUMMARY:

Prof. T. G. Sitharam rose from a modest rural background, studied in Kannada medium, overcoming financial constraints and limited access to resources. Despite these early challenges, he pursued excellence through dedication, resilience, and self-made merit - emerging as a global expert, national leader, and reformer in education, infrastructure, & policy against considerable odds. Prof. T. G. Sitharam is a distinguished academic leader, institution builder, and policy expert with over 35 years of transformative contributions to India's technical education, skilling, innovation, Contribution to National projects, and research ecosystem. With deep technical roots at IISc Bangalore and IIT Guwahati and international academic exposure, Prof. Sitharam uniquely combines policy vision, operational excellence, and people-centric governance. His track record positions him as a transformative leader in India and globally bridging policy with execution, and innovation with impact.

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