

teg crest

(Deemed to be **University** u/s 3 of UGC Act, 1956)

Distinct Category - Research

MSc in Frontier Intelligence and Autonomous Agents

ONE-YEAR INTENSIVE MASTER'S PROGRAMME

Designed for those ready to engage deeply with the next era of intelligent systems.

A RESEARCH-DRIVEN ECOSYSTEM



RESEARCH-LED

Academic Environment



ACCOMPLISHED

Faculty & Mentors



ADVANCED

Research Infrastructure



INDUSTRY

Collaborations

INSTITUTE BACKGROUND

TCG CREST University is the academic and research arm of The Chatterjee Group (TCG). TCG is a multibillion-dollar, knowledge-driven business group with operations across 45 countries and over \$3 billion in strategic long-term investments. Dr. Purnendu Chatterjee founded TCG in 1989. Since then, TCG has built a legacy of institution-building across life sciences, technology, real estate, asset management and manufacturing.

TCG CREST University is officially recognized under the UGC Act, 1956. It is built on a strong doctoral and research-led academic foundation. It brings together rigorous scientific inquiry and industry-facing applications. Six research verticals anchor every programme it runs, including the MSc in Frontier Intelligence and Autonomous Agents (FIAA).

The university operates from the Bengal Eco Intelligent Park, EM Block, Sector V, Bidhannagar, Kolkata. This location sits at the heart of Kolkata's IT and innovation corridor.

STORY BEHIND

TCG CREST University was conceived on a simple premise. India needs research institutions built with the same rigour, ambition and long-term vision that built The Chatterjee Group itself. Rather than replicating a conventional university model, the institute was designed as an industry-backed academic ecosystem with a future-facing orientation. Research, teaching and real-world enterprise sit side by side here.

The FIAA programme is the newest expression of that vision. As AI moved from predictive models to autonomous, reasoning, tool-using agents, the institute recognized a gap. India lacked a postgraduate programme built specifically around this frontier. FIAA was designed from scratch to train the next generation of engineers and researchers who can build systems that plan, decide, and act.

tcg crest

WHAT OUR LEADER ENVISIONS

FROM THE DESK OF THE CHANCELLOR



"The MSc in Frontier Intelligence and Autonomous Agents was built for a specific moment. AI systems are shifting from ones that predict to ones that act. We designed this programme without the inherited assumptions of a legacy CS degree. That means our door is wider, our curriculum is dynamically updated, and our research verticals are directly tied to how intelligent agents are being deployed in the real world today. FIAA is where rigorous mathematical foundations meet hands-on systems engineering. We are preparing graduates not just to use AI tools but to design, build and govern the autonomous systems that will define the next decade."

- Dr. Purnendu Chatterjee

Founder, Chairman – The Chatterjee Group
Chancellor – TCG CREST University



VISION

TCG CREST University aspires to be a world-leading research institution that unlocks the full potential of human talent. TCG CREST University is dedicated to the four Ks: Knowledge Creation, Knowledge Application, Knowledge Dissemination, and Knowledge Exchange. The aim is to build a strong global network comprising leading universities, research institutions, technology-driven corporations, knowledge centres and academic communities. Our goal is to foster a culture of continuous knowledge exchange through collaborative research, student and faculty exchanges, joint projects, workshops, and seminars.



MISSION

Conduct world-class research in frontier intelligence, autonomous systems, quantum technologies, and other emerging fields that drive global progress.

Deliver globally competitive education, including the MSc in Frontier Intelligence and Autonomous Agents, to prepare learners for a technology-driven world.

Build a global network of partnerships with leading universities, corporations, research institutions and innovation ecosystems.

Translate research into scalable innovations and commercial ventures with international impact.

Advance responsible and ethical innovation that benefits diverse communities worldwide.



CORE VALUES

Intellectual Rigour

Responsible Innovation

Global Collaboration

Inclusive Excellence

Impact Orientation



POSITIONING

A globally leading, research-driven institution advancing artificial intelligence, autonomous systems, quantum technologies and other emerging fields. Through cutting-edge research, transformative education, and strategic global partnerships, the aim is to develop exceptional talent and deliver innovations that shape industries and improve human well-being.

DETAILS ABOUT THE FRONTIER INTELLIGENCE AND AUTONOMOUS AGENTS (FIAA) COURSE

FIAA is structured as a continuous academic journey across three terms. It is preceded by two preparatory modules that level the playing field for candidates from diverse backgrounds. This includes science, engineering, data science, finance, and economics with quantitative exposure.

PREPARATORY MODULES

PRIMER I.

Primer 1: Mathematical, Statistical & Computational Foundations

- Linear Algebra for ML
 - Probability & Statistics
 - Optimization Basics
 - Numerical Computing & Python
 - Gradient-based learning intuition
-

PRIMER II.

Data Engineering, Management & AI in Organizations

- Data Engineering & Pipelines
- Data Governance, Lineage, Integration
- Organizational Systems & Business Processes (4Ms)
- AI Adoption Strategy & Economics
- Ethics, Responsible & Explainable AI
- Case Studies (Healthcare, Supply Chain)

TERM I.

Foundations of Intelligent Systems

1. Mathematical & Statistical Foundations

- Multivariate calculus, optimization
 - Convex/non-convex optimization
 - Probabilistic modeling & inference
-

2. Machine Learning & Representation Learning

- Supervised & unsupervised learning
 - Neural networks & backpropagation
 - Regularization, generalization
 - CNNs, sequence models
 - Geometric & representation learning
-

3. Probabilistic & Generative Models

- Graphical models
 - VAEs, Generative Adversarial Networks (GANs)
 - Diffusion basics
 - Uncertainty estimation
-

4. Data, Evaluation & Experimental Design (NEW)

- Graphical models
 - VAEs, Generative Adversarial Networks (GANs)
 - Diffusion basics
 - Uncertainty estimation
-

5. AI Systems Lab I

- GPU computing basics
- PyTorch/JAX
- Data pipelines
- Training workflows
- Small model training

TERM II.

Foundation Models & Agentic AI

1. Large Language Models & Foundation Models

- Transformers & attention
 - Language Models in classical NLP
 - Tokenization & embeddings
 - Self-supervised pretraining
 - Fine-tuning & small LMs
 - Retrieval-Augmented Generation
-

2. Multimodal & Generative AI

- Vision-language models
 - Diffusion systems
 - Cross-modal retrieval
-

3. Data, Evals & Scaling Trade-offs (NEW CORE)

- Human vs synthetic data
 - Bias & fairness in LLMs
 - Evaluation suites (benchmarks, LLM evals)
 - Trade-offs & model improvement ("hill climbing")
-

4. Agentic AI & Multi-Agent Systems

- Autonomous agents
 - Prompt engineering
 - Tool use (LangChain, APIs)
 - Multi-agent orchestration (A2A, MCP)
 - Memory & reasoning systems
-

5. Reinforcement Learning & Decision Systems

- MDPs
 - Policy learning
 - RLHF
 - Multi-agent RL
-

6. AI Systems Lab II

- Fine-tuning LLMs
- Efficient inference
- API-based systems
- Deployment pipelines

TERM III.

AI Studio, Systems & Applications

1. AI Systems Engineering & Deployment

- Cloud AI (AWS/GCP/Azure)
 - Model deployment
 - Monitoring & MLOps
-

2. Domain AI Applications

Case-based modules:

- Healthcare AI
 - Supply Chain & Manufacturing
 - Finance & Risk Analytics
 - Cybersecurity / Code AI
-

3. Responsible, Fair & Explainable AI

- Bias mitigation
 - Explainability (SHAP, LIME)
 - Governance & compliance
 - Ethical AI systems
-

4. Industry Immersion / Case-Based Learning

- Real-world problem solving
 - Industry case discussions
 - Exposure to Industry 4.0 / robotics
-

5. Capstone Project / Thesis

- Problem definition
 - System design
 - Model building
 - Evaluation
 - Final report & presentation
-

6. Innovation Workshops & Build Challenges

- Short hackathons
- Rapid prototyping
- Multi-agent systems

FACILITIES

- ◆ **GPU-enabled workstations** for model training and experimentation
- ◆ **Cloud compute credits** across AWS, GCP and Azure
- ◆ **LLM API access**, including OpenAI, Anthropic and other leading providers
- ◆ **Open-source framework access**, including HuggingFace and LangChain and equivalent tools.
- ◆ **On campus, full-time learning environment** at the Bengal Eco Intelligent Park, Kolkata's dedicated innovation and IT hub
- ◆ **Access to TCG CREST University's broader research infrastructure** across its six research verticals

COURSE INFORMATION

Programme Name	MSc in Frontier Intelligence and Autonomous Agents (FIAA)
Offered By	TCG CREST University
Duration	1 Year, Preparatory Modules plus 3 Terms
Format	Full-time, on campus
Campus	Bengal Eco Intelligent Park, Sector V, Bidhannagar, Kolkata
Next Cohort	September 2026
Total Programme Fee	₹ 2,500,000, payable across 5 milestone-linked instalments
Eligibility	Minimum of 16 years of formal education. 4-year Bachelor's degree or relevant postgraduate qualifications. Minimum 55% qualifying marks. An MBA with a specialisation in Finance, Human Resources, Marketing, Operations, Business Analytics or a related area. A three-year Bachelor's degree followed by successful completion of the prescribed Pre-MSc Bridge Programme.
Open To	Final year UG and PG students, early career professionals, industry sponsored candidates
Admissions Process	Application, Document Review, Entrance Exam, Personal Interview, Offer, Enrolment.



COURSE FEE BREAKDOWN

No.	Milestone	Amount
1	At the time of application	₹ 25,000
2	Within 7 days of receiving the offer letter	₹ 225,000
3	Within 7 days of completion of the Preparatory Module	₹ 750,000
4	Within 7 days of completion of Term 1	₹ 750,000
5	Within 7 days of completion of Term 2	₹ 750,000

Education Loan Assistance

To make quality education more accessible, TCG CREST has partnered with leading banks and NBFCs to facilitate education loans for eligible students.



SCHOLARSHIP SUPPORTED BY DONORS

Category	Merit
Name of the Scholarship	Ideal Eyes Academic Merit Scholarship
Description	Ideal Eyes sponsors merit-based scholarships for top-ranking FIAA applicants, recognizing academic excellence in AI and computational research. Awardees are recognized as "Ideal Eyes Scholars."
How to Apply?	No separate application required
Scholarship Amount	₹ 1,00,000
Stipend	—
Mode	Waiver

Category	Research
Name of the Scholarship	Laser Science Services Research Potential Award
Description	Laser Science Services sponsors awards for applicants demonstrating genuine research aptitude – published papers, GitHub projects, or open-source contributions. Includes a monthly stipend commencing after successful completion of Term I, recognizing sustained research engagement.
How to Apply?	No separate application required, assessed from SOP and research portfolio
Scholarship Amount	₹ 75,000
Stipend	₹ 180000 (Post Term I)
Mode	Waiver + Stipend

Education Loan Assistance.

TCG CREST University has tied up with leading banks and NBFCs. This includes collateral-free loan options for students scoring 80% or above in graduation, plus dedicated HDFC Bank support.

Category	Research
Name of the Scholarship	Ideal Eyes Research Potential Award
Description	Ideal Eyes sponsors awards for applicants demonstrating genuine research aptitude – published papers, GitHub projects, or open-source contributions. Includes a monthly stipend commencing after successful completion of Term I, recognizing sustained research engagement.
How to Apply?	No separate application required, assessed from SOP and research portfolio
Scholarship Amount	₹ 75,000
Stipend	₹ 180000 (Post Term I)
Mode	Waiver + Stipend

Category	Diversity
Name of the Scholarship	Eppendorf Women in AI Scholarship
Description	Eppendorf has committed to supporting women candidates pursuing careers in AI and autonomous systems. Five scholarships are reserved annually.
How to Apply?	No separate application required
Scholarship Amount	₹ 1,00,000
Stipend	—
Mode	Waiver

Category	Technical Excellence
Name of the Scholarship	Lab Solutions Technical Excellence Award
Description	Lab Solutions sponsors awards for applicants demonstrating exceptional technical proficiency in building AI-driven instrumentation, lab automation systems, or data-intensive scientific tools. Recognizes precision-engineering capability at the intersection of AI and applied science.
How to Apply?	No separate application required, assessed from technical portfolio and SOP
Scholarship Amount	₹ 1,00,000
Stipend	—
Mode	Waiver

SCHOLARSHIP SUPPORTED BY TCG CREST UNIVERSITY

Category	Merit-Based (General)
Name of the Scholarship	Merit-Based Scholarship of up to 50%
Description	Merit-Based Scholarship of up to 50% is available for eligible candidates based on academic and professional credentials.
How to Apply?	No separate application required
Scholarship Amount	Up to 50% Waiver on Fee
Stipend	—
Mode	Waiver

Category	Merit
Name of the Scholarship	TCG CREST Academic Merit Scholarship
Description	Awarded to top-ranking FIAA applicants on the basis of academic excellence, recognising outstanding performance in prior qualifying examinations and admission assessment.
How to Apply?	No separate application required
Scholarship Amount	₹ 1,00,000
Stipend	—
Mode	Waiver

Education Loan Assistance.

TCG CREST University has tied up with leading banks and NBFCs. This includes collateral-free loan options for students scoring 80% or above in graduation, plus dedicated HDFC Bank support.

Category	Research
Name of the Scholarship	TCG CREST Research Potential Award
Description	Awarded to applicants demonstrating genuine research aptitude — published papers, GitHub projects, or open-source contributions. Includes a monthly stipend commencing after successful completion of Term I.
How to Apply?	No separate application required, assessed from SOP and research portfolio
Scholarship Amount	₹ 75,000
Stipend	1,80,000 (Post Term I)
Mode	Waiver + Stipend

Category	PhD Continuation
Name of the Scholarship	TCG CREST PhD Continuation Waiver
Description	Since TCG CREST's PhD programme is already fee-free, this award instead reduces the standard PhD duration from 5 years to 4 years for FIAA graduates who join a TCG CREST PhD programme immediately upon completion of the MSc — in recognition of the advanced research foundation built during FIAA and encouraging continuation into the institution's research pipeline.
How to Apply?	Automatic upon confirmed PhD admission at TCG CREST
Scholarship Amount	—
Stipend	—
Mode	1-Year Duration Reduction (5 yrs → 4 yrs)

Category	Diversity
Name of the Scholarship	Armed Forces Scholarship
Description	Offered in honour of armed forces personnel and their dependants, in recognition of their service and sacrifice in keeping the nation safe.
How to Apply?	No separate application required — proof of service required
Scholarship Amount	50% Waiver
Stipend	—
Mode	Waiver

FACULTY

FIAA draws on internationally trained researchers whose expertise spans machine learning, intelligent systems, computational science and autonomous agent technologies.

PROGRAMME LEADERSHIP



Prof. Saibal Chattopadhyay
Director, Academic Programmes,
TCG CREST University



Prof. Goutam Mukherjee
Director, Institute for Advancing Intelligence
(IAI)
*Dean, School of Mathematics and Computer
Science*



Prof. Swagatam Das
Mentor, IAI, TCG CREST University
Professor – Indian Statistical Institute



Dr. Prabhakar Raghavan
Chief Technologist – Google
Strategic Advisory Leader,
TCG CREST University

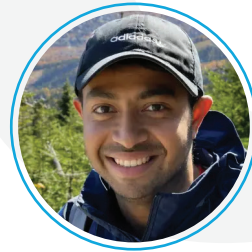
CORE FACULTY



Dr. Shibasish Dasgupta
Professor of Practice, IAI,
TCG CREST University



Dr. Avisek Gupta
Assistant Professor, IAI,
TCG CREST University



Dr. Proloy Das
Assistant Professor, IAI,
TCG CREST University



Dr. Sourav Bhaduri
Assistant Professor, IAI,
TCG CREST University



Dr. Md Sahidullah
Assistant Professor, IAI,
TCG CREST University



Dr. Rima Hazra
Assistant Professor, IAI,
TCG CREST University

COLLABORATING FACULTY



Dr. Debapriyo Majumdar
Assistant Professor
Indian Statistical Institute,
Kolkata 



Dr. Sudeepa Roy
Associate Professor
Duke University, USA 



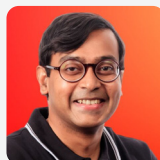
Prof. Debmalya Panigrahi
Professor
Duke University, USA 



Prof. Barna Saha
Professor
University of California
San Diego, USA 



Prof. Arya Mazumdar
Professor
University of California
San Diego, USA 

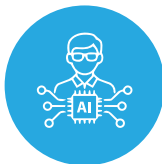


Dr. Amritendu Mukherjee
Co-founder & CTO
NeuroPixel.AI 

Students also benefit from research mentorship connected to TCG CREST University's global academic partner network.

JOB ROLES AFTER THE COURSE

Based on the curriculum's coverage of ML systems, LLMs, agentic AI and applied domain modules, graduates are positioned for roles such as



Lead AI and ML Engineer

Lead the engineering of intelligent systems built for real-world complexity.



Agentic AI and Autonomous Systems Engineer

Design AI that doesn't just respond. It reasons, plans and acts.



LLM and Foundation Model Engineer

Engineer the foundation models powering the next generation of intelligence.



AI Systems Engineer for MLOps and Deployment

Take AI from research and experimentation to reliable production systems.



Principal AI Research Scientist

Explore the architectures and algorithms that could define what comes next.



Applied AI Consultant across Finance, Healthcare and Manufacturing

Apply frontier AI to some of industry's most complex problems.



Responsible AI and AI Governance Specialist

Shape how powerful AI is evaluated, governed and responsibly deployed.



Data and AI Product Strategist

Turn emerging AI capabilities into products people and businesses can actually use.



Future-Ready Emerging Roles

Prepare for AI roles that are being created as the technology evolves.

HOW THE COURSE BENEFITS POTENTIAL CANDIDATES

A. No prior CS degree required.

The programme is open to candidates from science, engineering, data science, finance and economics backgrounds with quantitative exposure. The preparatory modules close any foundational gaps.

B. Research-led, not just tool-led.

The programme is built on TCG CREST University's doctoral research culture. Candidates learn why AI systems work, not just how to prompt them.

C. Direct industry access.

Structured engagement with global technology, banking, energy and manufacturing majors gives candidates real-world problem exposure well before graduation. See Section 11 for the full list.

D. A guaranteed personal interview.

There is no black box rejection in the admission process.

E. Scholarship-backed affordability.

Merit, research, and diversity-linked scholarships materially reduce the net cost of the programme.

F. Employer-informed curriculum.

TCG CREST University runs CHRO roundtables specifically to align curriculum with what employers are hiring for, before the first cohort even finishes Term I.

G. Full infrastructure access.

GPU workstations, multi-cloud credits and commercial LLM APIs remove the barrier of not having access to compute.

RESEARCH EXCELLENCE AT TCG CREST UNIVERSITY

FIAA's inaugural cohort begins in September 2026, What FIAA students step into instead is TCG CREST University's live and active research culture. The same Institute for Advancing Intelligence (IAI) that anchors the FIAA curriculum is already producing globally recognized work. Here is a sample of recent achievements from TCG CREST University's research community.

MAJOR ONGOING PROJECTS

1. Development of AI/ML model to predict responder Vs non-responder molecular signatures against EGFR-TKI – India Vs Caucasian lung cancer patient — BFI BIOME, PI: Dr. Anupama Goyal (Senior Scientist, CARE, TCG CREST), Co-PI: Dr. Shibasish Dasgupta (Professor of Practice, IAI, TCG CREST), Co-PI: Dr. Sangeeta Choudhury (Prof & Senior Consultant, Biotechnology & Research, Sir Ganga Ram Hospital, Delhi NCR).
2. Real-Time Voice Deepfake Detection System — IndiaAI Mission, MeitY, Collaborative project between IIT Kharagpur [Nodal Institute] and TCG CREST [Collaborating Institute] (TCG CREST PI: Md Sahidullah; IIT Kharagpur PI: Goutam Saha; IIT Kharagpur Co-PI: Subhadip Mukherjee).
3. A multi-modal neuroimaging study to uncover the neural basis of cognitive flexibility in humans by tracking rapid dynamical changes during task switching and mapping them to the cortical networks using novel high precision signal processing tools — ANRF (TCG CREST PI: Proloy Das).

RECENT PUBLICATIONS

1. S. Mohakud, S. Pavithra, S. Naik, P. Mishra, D. K. Muduly, P. Kumar, S. K. D. Majumdar, S. Bhaduri, P. K. Swain, and B. Korrapati, 2026. "Evaluating the utility of qualitative and quantitative multiparametric magnetic resonance imaging (MRI) parameters in distinguishing luminal and nonluminal breast cancer subtypes." *Clinical Radiology*, 100, 107426. doi: 10.1016/j.crad.2026.107426. [\[+Read More\]](#)
2. A. Aravind and P. Das 2026. "Discovering Latent Oscillations Driving Observed Point Process Using a Doubly Stochastic Model," *Proc. IEEE Engineering in Medicine and Biology Society (EMBC)*, 2026. [\[+Read More\]](#)
3. S. L. J. Tou, M. He, S. Y. Oshiro, P. Das, and P. L. Purdon, 2026. "ICA-S3M: Switching state-space model guided automatic EEG artifact removal from independent components." *Frontiers in Neuroscience*, 20, 1865301. doi: 10.3389/fnins.2026.1865301. [\[+Read More\]](#)

4. P. Das, 2026. "AR estimation from noisy observation via EM algorithm for singular state space model." Proceedings of the Asilomar Conference on Signals, Systems, and Computers, Pacific Grove, CA, USA. (To appear)
5. P. Das and V. Solo, 2026. "A Frequency Domain EM Algorithm for fitting Autoregressions in White Noise." Proceedings of the IEEE Conference on Decision and Control. (To appear)
6. C. Hanilci, M. Sahidullah, and T. Kinnunen, 2026. "Cyclostationarity Analysis as a Complement to Self-Supervised Representations for Speech Deepfake Detection." IEEE Transactions on Audio, Speech and Language Processing. (In press) [\[+Read More\]](#)
7. S. Banerjee, P. Chatterjee, S. Kumar, S. Layek, P. Agrawal, R. Hazra, & A. Mukherjee (2026). "Attributional Safety Failures in Large Language Models under Code-Mixed Perturbations". Transactions on Machine Learning Research. (In press) [\[+Read More\]](#)

INDUSTRIES & TIE-UPS

A. Research Collaborations

- ◆ Chennai Mathematical Institute (CMI), TIFR, Max Planck, University of Chicago and Imperial College London.
- ◆ IITs, UC San Diego, University of California Berkeley and Rice University.
- ◆ IISERs, University of Chicago, National University of Singapore, University of Tokyo and University of Edinburgh.
- ◆ Oerlikon Surface Solutions AG, University of Lausanne, Uppsala University and Swansea University.

B. Industry Engagement

- ◆ TCG Group Companies: Lummus Technology, Haldia Petrochemicals, MCPI Pvt Ltd, Labvantage Solutions, TCG Digital, TCG Lifesciences, TCG First Livingspaces, TCG Real Estate and TCG Asset Management.
- ◆ Global Technology: Google DeepMind, Microsoft, Amazon, Dassault Systèmes, Forty Two Labs and Quilimanjaro Quantum Tech S.L.
- ◆ Banking, Financial Services and Consulting; PwC, EY, KPMG, RSM AE Technology LLC, HDFC Bank, IDFC First Bank, State Bank of India, Standard Chartered Bank, Citi Bank, HSBC, ICICI Bank and TATA AIG.
- ◆ Energy and Materials: Exide Energy Solutions Limited, LionVolt B.V., Thermax Ltd., Unigrid Inc. and Himadri Speciality Chemical Limited.
- ◆ Advanced Manufacturing and Mobility: Oerlikon Surface Solutions AG, Epsilon Advanced Materials Private Limited, KPIT Technologies Ltd and Universe Mobility Private Limited.

The FIAA Community

Learn. Collaborate. Innovate. Lead

INTERNATIONAL EVENTS

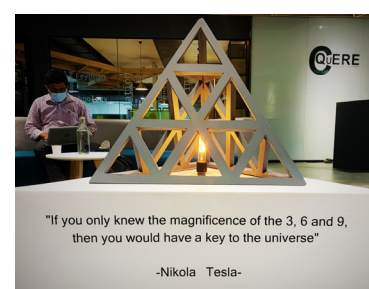


CONNECTED CAMPUSES

A Continuous
Knowledge Landscape

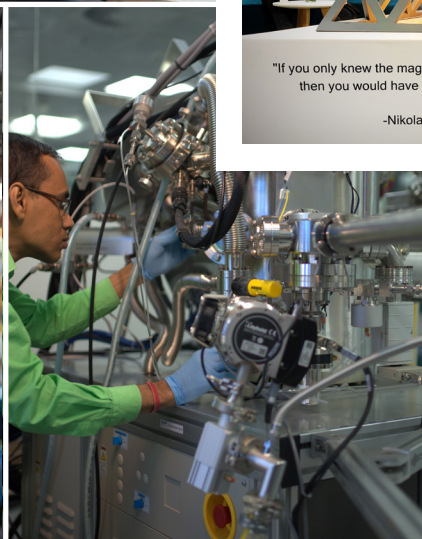
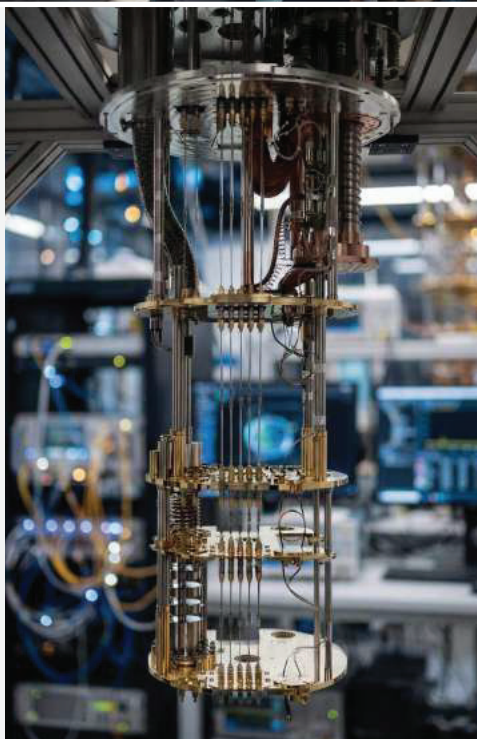
TCG CREST positions education as active participation, not passive instruction.

Education here is understood as a living, evolving ecosystem, and the architecture reflects this conviction.



"If you only knew the magnitude of the 3, 6 and 9,
then you would have a key to the universe"

-Nikola Tesla-



TCG CREST SHAPING NATIONAL NARRATIVES

In 2025, TCG CREST emerged as a credible public voice on frontier science, health, education reform and India's research ecosystem. Faculty insights, institutional perspectives and research breakthroughs translated into mainstream conversations.

THE HINDU

One of the first research-driven private university to be established in Kolkata

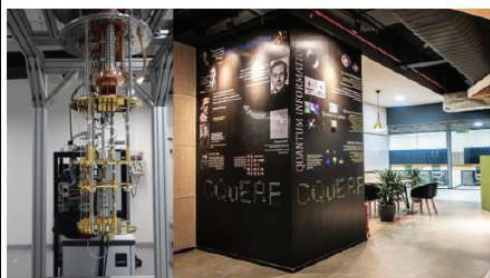
This initiative will make students of the new generation better equipped to address the dynamic needs of the job market in India, says a mentor at TCG

Published - June 01, 2025 (3:25 AM) | 10 min 01 | Kolkata

SASARANA CHATTERJEE

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READ LATER PRINT



TCG CREST, which was established in 2020, has quickly emerged as a key player in the global science and technology innovation landscape.

INDIA TODAY

How Kolkata researchers are turning potato, fungi into protein sources for Indians

Scientists in Kolkata are developing innovative proteins from potatoes and fungi to address India's protein deficiency. Their work could reduce reliance on expensive imports and improve nutrition for millions.

India's largest quantum computing research hub to come up at Salt Lake

By S. CHANDRASEKHAR

Published - June 01, 2025 (3:25 AM) | 10 min 01 | Kolkata

India's largest quantum computing research hub is set to take shape in Salt Lake, Kolkata, with the TCG CREST Quantum Computing Research Centre (TCG CREST-QCRC) as the anchor. The centre, which will be a joint venture between TCG CREST and the Government of West Bengal, is expected to be operational by 2026. It will focus on developing quantum computing applications in various fields, including healthcare, finance, and logistics. The centre will also serve as a platform for researchers and students to collaborate and advance the field of quantum computing in India.

The TCG CREST-QCRC is expected to be a major hub for quantum computing research in India. It will provide a platform for researchers and students to collaborate and advance the field of quantum computing in India. The centre will also serve as a platform for researchers and students to collaborate and advance the field of quantum computing in India.

The Statesman



Kolkata by Shriyash Hossain Sharma in a Live! Dr. Purnendu Chatterjee Remarks At: MCGA / Episode 23

PRESS TRUST OF INDIA
India's premier news agency

Tired Of Work, Going Through A Burnout? Science May Soon Read Your Mind, Explain Experts

At global meet, experts discuss how to make error-prone quantum machines reliable

International Conferences organized by TCG CREST made national headlines.

businessline.

The Chatterjee Group may consider taking up commercial production of sodium-ion batteries

Sodium-ion battery charges up to 94 per cent in just five minutes and delivers an energy density of around 180 watt-hour per kg

By Mithun Dasgupta

Updated - November 18, 2025 at 08:54 PM



Jeremy Harjany Ghose, President, TCG Group and Additional Director, TCG CREST board

Breakthrough in sodium-ion cells

SAMBIT SAHA

Kolkata: Scientists at Calcutta-based Research Institute for Sustainable Energy (RISE) under TCG-CREST have developed an indigenous sodium-ion (Na-ion) battery capable of charging up to 94 per cent in five minutes. The battery will match, in some parameters, surpass the performance of conventional lithium-ion (Li-ion) batteries that dominate the global EV and energy storage market at present. Unlike Li-ion systems, the technology developed by the scientists at the Salt Lake campus of TCG-CREST — a division of the university — uses no cobalt, nickel, copper or lithium, cutting India's exposure to global supply-chain risks for critical materials.



The RISE team under TCG-CREST

degradation. The five-minute charging capability combined with a high-power output of 30 kW means this chemistry can serve everything from electric vehicles to renewable energy grids. This is an Indian technology built for Indian conditions, robust, affordable and globally competitive," he said.

RISE has designed to give the specifics of the components used in the cell, calling it a trade secret but reminding that they are available in India.

He explained that Na-ion batteries have production going forward. It would focus only at manufacturing of cells, the full components of the battery. At a majority of the cells for Li-ion are produced in India are sourced from China.

The Telegraph



Dr. Purnendu Chatterjee met with PSA Prof. Ajay Kumar Sood and Scientific Secretary Dr. Parvinder Maini to discuss matters related to TCG CREST's various activities in facilitating R&D in the field of science and technology.

Kolkata Hosts Global Quantum Conference, Spotlights India's Growing Edge in Next-Gen Tech



Business Standard

THE CHATTERJEE GROUP (TCG)

The Group embraces the philosophy of knowledge creating wealth, and wealth in turn being leveraged to generate further and deeper knowledge and discovery.

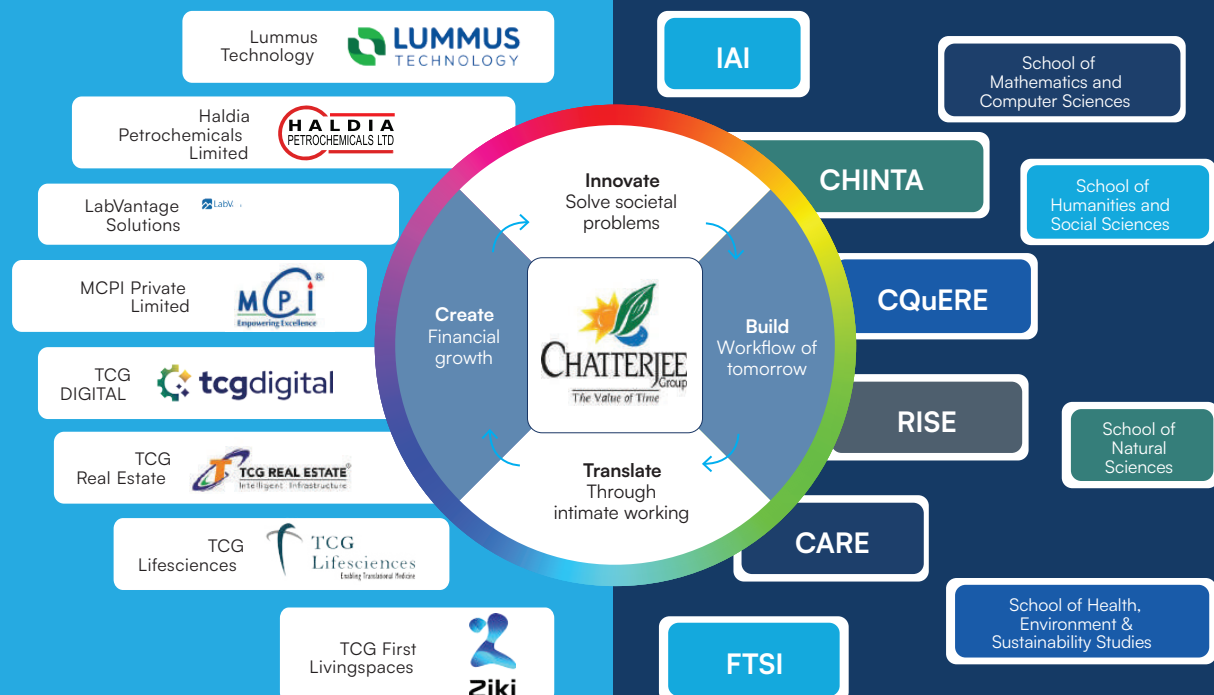
This approach creates a self-reinforcing cycle where commercial success and intellectual advancement fuel each other in a virtuous loop.

WEALTH TO KNOWLEDGE CYCLE

For Profit Entities — Partial List

TCG CREST: A Research University

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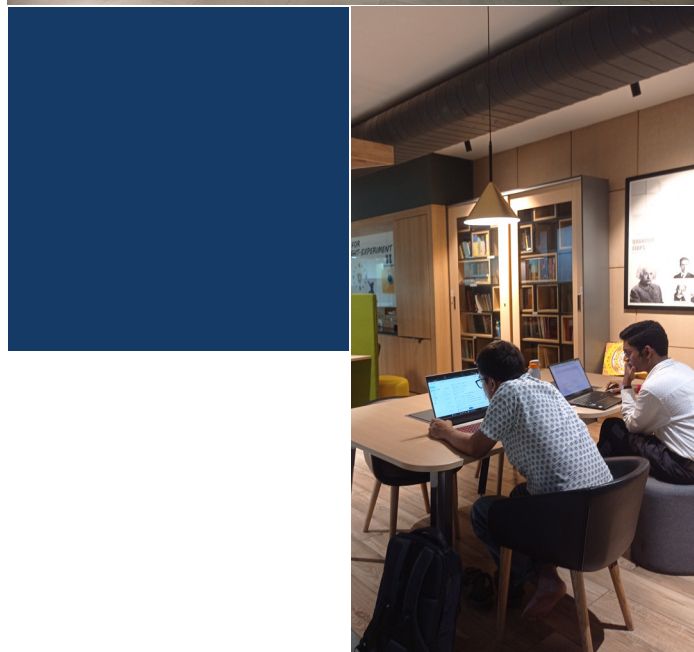
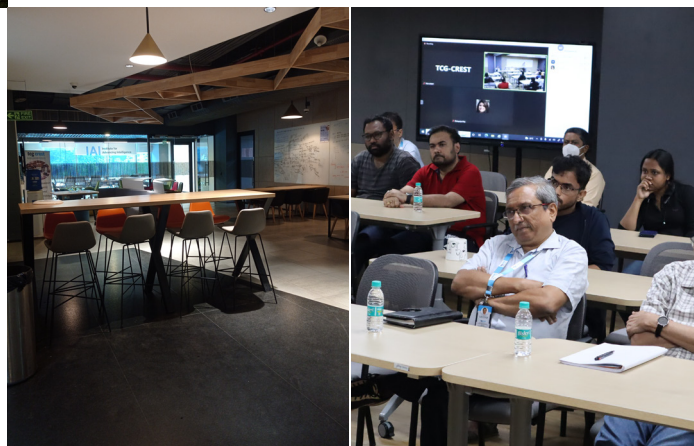




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