

Coverage Report

**IIT Madras and Mphasis collaborate to accelerate applied research in
Quantum Computing**

July 28, 2022

Print

Hindustan Times

COLLAB FOR QUANTUM

IIT Madras and Mphasis, a leading IT solutions provider specializing in cloud and cognitive services, are partnering to create a hub for quantum science and technology that produces top-quality graduates and promote fundamental and applied research in quantum technologies. This initiative is funded by Mphasis F1 Foundation, (the CSR arm of Mphasis) with a grant of Rs. 21 crores over five years. Countries all over the world are increasingly seen investing R&D in the field of quantum. Together, IIT Madras and Mphasis, would enable the development and attraction of talent to the quantum ecosystem by offering a limited number of high-value top-up scholarships to students who excel in research, full-time foreign students, and post-doctoral researchers, who will be offered globally competitive remuneration along with accessible and curated course materials. Online certification programmes will be made available through the NPTEL platform.

HTC

The New Indian Express

IIT, MPHASIS SIGN MOU

Indian Institute of Technology, Madras and Mphasis, an IT solutions provider, signed a memorandum of understanding (MoU) to create a hub for quantum science and technology that will produce top-quality graduates by promoting fundamental and applied research in quantum technologies

IIT Madras, Mphasis to boost applied research in quantum computing

NEW DELHI: The Indian Institute of Technology Madras (IIT-M) and information technology solutions provider Mphasis on Friday signed a Memorandum of Understanding (MoU) to accelerate applied research in quantum computing in the country.

As part of the MoU, Mphasis granted Rs 21 crore to the IIT-M for fundamental and applied research in quantum technologies and to set up a quantum lab that addresses real-world business and societal challenges.

The initiative was aimed at creating a hub for quantum science and technology that produces top-quality graduates; promoting fundamental and applied research in quantum technologies; democratising access to education in quantum technologies; assist-



ing start-ups aligned to relevant domains; developing and attracting talent to the quantum ecosystem by offering a limited number of high-value

top-up scholarships to students who excel in research; and supporting higher education and students whose research in quantum science

and specific quantum architectures will be recognised and have a significant societal impact.

"This partnership will create a consortium of government, academia, and industry that will focus on research, bringing together multidisciplinary teams to solve challenges currently limiting the industrial applications of quantum science and technologies. This hub or quantum centre will also collaborate with global universities and disseminate its research findings through workshops, peer-reviewed papers, and conferences," said Prof. Mallesh Panthugunda, Dean (Alumni and Corporate Relations), IIT Madras. The partnership will fortify India's leadership in quantum information, develop comprehensive training, and create quality resources for education and training in quantum

computing. In addition, the collaboration will also democratise quantum learning through training programmes tailored to specific industries, online certification programmes through the National Programme on Technology Enhanced Learning (NPTEL), and continuing education through IITM's web-enabled MTech programme on Quantum Science and Technology (QuST). "Quantum technology is at the brim, revolutionising quantum computing, sensing, and communication is leading to the emergence of new businesses and business models. Our collaboration with IIT Madras and the Government of India will enable us to harness the vast potential of quantum computing, enabling top capabilities and skill development for the future," said Srikanth Karra, Chief Human Resources Officer (CHRO) at Mphasis.

Online

The Times of India

[IIT-Madras and Mphasis collaborate on Quantum Computing research](#)

CHENNAI: Indian Institute of Technology - Madras (IIT-M) and IT solutions provider Mphasis specializing in cloud and cognitive services have signed a memorandum of understanding for applied research in quantum computing. Mphasis F1 Foundation, (the CSR arm of Mphasis) has extended a grant of Rs 21 crore over five years for this initiative.

The partnership will help create a hub for quantum science and technology that produces top-quality graduates, democratize access to education in quantum technologies and assist startups in the specific domain, among others.

Countries all over the world are increasingly seen investing in R & D in the field of quantum and this partnership will fortify India's leadership in quantum information, develop comprehensive training, and create quality resources for education and training in quantum computing, the parties said in a statement.

Additionally, the collaboration will democratize quantum learning through training programmes tailored to specific industries, online certification programs through the National Programme on Technology Enhanced Learning (NPTEL), and continuing education through IITM's web enabled MTech programme in Quantum Science and Technology (QuST).

"This partnership will create a consortium of government, academia and industry that will focus on research, bringing together multidisciplinary teams to solve challenges currently limiting the industrial applications of quantum science and technologies. This hub or quantum centre will also collaborate with global universities and disseminate its research findings through workshops, peer-reviewed papers, and conferences," said Mahesh Panchagnula, dean (Alumni and Corporate Relations), IIT-Madras.

"Our collaboration with IIT-Madras and the Government of India will enable us to harness the vast potential of quantum computing, enabling top capabilities and skills development for the future," said Srikanth Karra, chief human resources officer (CHRO), Mphasis.

The Hindu BusinessLine

[IIT Madras and Mphasis collaborate to accelerate applied research in Quantum Computing](#)

Mphasis grants ₹21 crore to IIT M for fundamental and applied research in quantum technologies

Indian Institute of Technology Madras and Mphasis, an IT solutions provider signed a Memorandum of Understanding (MoU) to create a hub for quantum science and technology that produces top-quality graduates by promoting fundamental and applied research in quantum technologies.

Financial Express

[IIT Madras partners with Mphasis to accelerate applied research in Quantum Computing](#)

Mphasis grants Rs 21 crore to IIT Madras for fundamental and applied research in quantum technologies.

Indian Institute of Technology Madras (IIT M) has a memorandum of understanding (MoU) with Mphasis, an Information Technology (IT) solutions provider to create a hub for quantum science and technology. The partnership aims to promote fundamental and applied research in quantum technologies, democratize access to education in quantum technologies, assist start-ups aligned to relevant domains and develop and attract talent to the quantum ecosystem by offering scholarships to students who excel in research.

According to an official statement, the initiative is funded by Mphasis F1 Foundation, (the CSR arm of Mphasis) with a grant of Rs 21 crores over five years. The partnership aims to develop comprehensive training, and create resources for education and training in quantum computing.

Furthermore, the collaboration aims to democratise quantum learning through training programmes tailored to specific industries, online certification programs through the National Programme on Technology Enhanced Learning (NPTEL), and continuing education through IITM's web enabled MTech program on Quantum Science and Technology (QuST).

“This partnership will create a consortium of Government, academia, and industry that will focus on research, bringing together multidisciplinary teams to solve challenges currently limiting the industrial applications of quantum science and technologies. This hub or quantum centre will also collaborate with global universities and disseminate its research findings through workshops, peer-reviewed papers, and conferences,” Mahesh Panchagnula, dean (Alumni and Corporate Relations), IIT Madras said.

Livemint.com

[IIT Madras bags ₹21 crore grant for research in quantum computing](#)

Indian Institute of Technology (IIT) Madras has received a grant of ₹21 crore to “accelerate fundamental and applied research” in quantum computing.

Indian Institute of Technology (IIT) Madras has received a grant of ₹21 crore to “accelerate fundamental and applied research” in quantum computing. The grant was announced as part of a Memorandum of Understanding (MoU) signed between IIT Madras and Mphasis, a Bengaluru-based IT solutions company.

Under the MoU, IIT Madras will collaborate with Mphasis to set up a Quantum Lab to solve real-world business and societal problems. They will also focus on developing and attracting talent to quantum technologies, support students with scholarships, and assist startups working in the field.

The institute will also create a hub for quantum technology to produce top-quality graduates.

"This hub or quantum centre will also collaborate with global universities and disseminate its research findings through workshops, peer-reviewed papers, and conferences," said Mahesh Panchagnula, Dean (Alumni and Corporate Relations) at IIT Madras.

According to IIT Madras, over the next five years, the research will focus on the expanses of quantum optimisation, quantum finance, quantum chemistry, quantum communication, quantum error correction, and quantum tomography.

"The research focus would be around the domains of information, communication, and computing. It will bring together faculty from different engineering and science disciplines and focus on enhancing industrial applications of quantum science and technologies," said Ramanathan Srikumar, chief solutions officer at Mphasis.

Mphasis specialises in cloud and cognitive services. However, it has been talking about using quantum computers for machine learning, optimisation, and simulation problems. The company has said in the past that it sees quantum computing as playing a major role in solving the business problems of its customers.

Last month, Mphasis announced a partnership with the Canada's University of Calgary and the provincial government to set up a Quantum City Centre of Excellence, which will focus on developing talent and quantum technologies for commercial use.

In February 2020, Union finance minister Nirmala Sitharaman announced that the government of India would provide ₹8,000 crore in funds over a period of five years for a national mission to boost domestic research in quantum computing.

DataQuest

[IIT Madras Launches New Smart Manufacturing and Digital Transformation Centre](#)

IIT Madras centre will focus on collaborative research and end-to-end innovation for smart manufacturing supply chain collaboration

IIT Madras has launched Smart Manufacturing and Digital Transformation Centre (SMDTC) to democratise Smart Manufacturing and Digital Transformation. It will create the foundation elements of the Manufacturing Execution System, IIoT Database and Manufacturing Intelligence Software platforms for Indian MSMEs, adopting Industry 4.0 practices to leapfrog toward World Class and Self-Reliant Manufacturing.

The Centre is being established in a joint partnership between Advanced Manufacturing Technology Development Centre (AMTDC), a Centre of Excellence at IIT Madras, MESA International (Manufacturing Enterprise Solutions Association), a global non-profit present in over 40 countries, and Cantier Systems, a leading provider of Next Generation Manufacturing Execution System for Industry 4.0.

The Smart Manufacturing and Digital Transformation Centre was inaugurated on 13 July 2022 by Dr N Chandrasekaran Chairman, Tata Sons, in the presence of Dr Pawan Kumar Goenka, Chairman, Board of Governors, IIT Madras, Prof. V Kamakoti, Director, IIT Madras, Prof N Ramesh Babu Secretary, AMTDC, Dr Ananth Seshan, Vice-Chairman – MESA International, Prabakar Selvam, Chairman – MESA APAC and CEO – Cantier Systems, R Ravisankar, Chairman – MESA India SIG (South) and Executive Director, Cantier Systems and Alok Varshney Chairman and MESA India SIG (North).

Speaking about this Centre, Prof N Ramesh Babu, Faculty, Department of Mechanical Engineering, IIT Madras, and Secretary, AMTDC, IIT Madras, said: “SMDTC will lead in provisioning a Smart Manufacturing Model Factory / Experience Centre and also support Collaborative Research / Innovation for Industry 4.0 in Process Intelligence, Robotics and Machining Dynamics Control Automation.”

What the IIT Madras Smart Manufacturing and Digital Transformation Centre will focus on

- Smart manufacturing education and community interaction for capacity building.
- Smart manufacturing maturity assessment.
- Smart manufacturing experience center with model factory facilities.
- Collaborative research and end-to-end innovation for smart process intelligence.
- 5G enablement to democratise smart manufacturing adoption.
- Smart manufacturing supply chain collaboration.

With in-built capabilities like monitoring, alarming and visual dashboards for real-time predictive decision support, this partnership will create a unified platform for the next generation of smart manufacturing – unlocking the hidden value from Legacy Manufacturing Assets by contextually liberating relevant data from the shop floor equipment/devices and delivering exponential business value to the enterprise

The Plan and Benefits in the Immediate Term include Smart Manufacturing Maturity Assessment and Continuous Improvement, Workforce Development through High Impact vocational training programs on Smart Manufacturing and Industry 4.0 and implementation experience sharing with case studies. 5G enablement to Democratise Smart Manufacturing adoption will also be taken up besides Virtual Smart Manufacturing Supply Chain Collaboration and providing students with engagements in hands-on implementation of Smart Manufacturing technologies.

TechCircle

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United News of India

[IIT-Madras signs MoU with Mphasis](#)

Indian Institute of Technology Madras (IIT M) and Mphasis, a leading Information Technology (IT) solutions provider specializing in cloud and cognitive services, sign a Memorandum of Understanding (MoU) to:

- Create a hub for quantum science and technology that produces top-quality graduates
- Promote fundamental and applied research in quantum technologies
- Democratize access to education in quantum technologies
- Assist start-ups aligned to relevant domains and
- Develop and attract talent to the quantum ecosystem by offering a limited number of high-value top-up scholarships to students who excel in research
- Support higher education and students whose research in quantum science and specific quantum architectures will be recognized and have a significant societal impact.

This initiative is funded by Mphasis F1 Foundation, (the CSR arm of Mphasis) with a grant of Rs. 21 crores over five years. Countries all over the world are increasingly seen investing in Research & Development (R&D) in the field of

Quantum. The partnership will fortify India's leadership in quantum information, develop comprehensive training, and create quality resources for education and training in quantum computing. Together, IIT M and Mphasis, would enable the development and attraction of talent to the quantum ecosystem by offering a limited number of high-value top-up scholarships to students who excel in research, full-time foreign students, and post-doctoral researchers, who will be offered globally competitive remuneration along with accessible and curated course materials.

Additionally, the collaboration will democratize quantum learning through training programs tailored to specific industries, online certification programs through the National Programme on Technology Enhanced Learning (NPTEL), and continuing education through IITM's web enabled MTech program on Quantum Science and Technology (QuST).

"This partnership will create a consortium of Government, Academia, and Industry that will focus on research, bringing together multidisciplinary teams to solve challenges currently limiting the industrial applications of quantum science and technologies. This hub or quantum centre will also collaborate with global universities and disseminate its research findings through workshops, peer-reviewed papers, and conferences," said, Prof. Mahesh Panchagnula, Dean (Alumni and Corporate Relations), IIT Madras.

"Quantum technology is at the brim; revolutionizing Quantum computing, sensing, and communication is leading to the emergence of new businesses and business models. Our collaboration with IIT Madras and the Government of India will enable us to harness the vast potential of quantum computing, enabling top capabilities and skills development for the future," said Srikanth Karra, Chief Human Resources Officer (CHRO), Mphasis. "The collaboration tangibly demonstrates our ambition to bring the most innovative, breakthrough solutions and invest in capabilities early on to stay ahead of the curve. Building a cohesive industry for quantum computing necessitates a concentrated effort to develop the ecosystem across sectors and that is what we aim to achieve with our partnership," he added.

Elaborating on the projects to be taken up by this program, Prof. Anil Prabhakar, Department of Electrical Engineering, IIT Madras, said, "Over a period of five years, the research will primarily focus on the expanses of Quantum Optimization, Quantum Finance, Quantum Chemistry, Quantum Communication, Quantum Error Correction and Quantum Tomography. The lab built through this partnership will harness the potential of quantum technologies and uncover the areas expected to achieve early gains with quantum computers and migrate real-world use cases onto quantum computers. It will also evaluate the societal needs and consequences of having access to quantum computers and employ quantum computers for basic research".

With this core objective, an 'Industry-Academia Conclave' was also organized today (22nd July 2022) – as one of many events under this partnership, bringing together various stakeholders in Quantum Technology, witnessing participation from Pfizer, Goldman Sachs, KLA, Mphasis, Larsen & Turbo Infotech (LTI), IBM amongst others. At this industry-academia conclave, leading companies focused on the emerging field of quantum computing and academic researchers working in quantum, exchanged information and ideas, helping each other understand market demand and research developments, respectively. Academic research in this domain is now becoming increasingly

relevant and valuable to the ecosystem thus paving way for greater involvement by technology companies in applied research.

“Mphasis is at the forefront in using quantum computers for machine learning, optimization, and simulation problems. We envision quantum computing as a significant driver in solving future business problems. The research focus would be around the domains of information, communication, and computing. It will bring together faculty from different engineering and science disciplines and focus on enhancing industrial applications of quantum science and technologies,” said Ramanathan Srikumar, Chief Solutions Officer, Mphasis.

“The law allows CSR funds to be deployed in scientific research. While some CSR initiatives may provide immediate gratification, they may not provide sustainable results in the long-term. Investing in socially relevant scientific research will lead to outcomes that can have a structural impact and will benefit a larger number of people in the long run. Mphasis certainly recognizes this, and we are grateful to them for taking this very progressive step as part of their CSR agenda,” said Kaviraj M G, Chief Executive Officer, Office of Institutional Advancement- IIT M.

Print			
Date	Publication	Edition	Headline
July 27, 2022	Hindustan Times	Delhi	COLLAB FOR QUANTUM
July 23, 2022	The New Indian Express	Chennai	IIT, Mphasis Sign MOU
July 23, 2022	Morning India	NA	IIT Madras, Mphasis to boost applied research in quantum computing

Online		
Date	Publication/ Portal	Headline
July 22, 2022	The Times of India	IIT-Madras and Mphasis collaborate on Quantum Computing research
July 22, 2022	The Hindu BusinessLine	IIT Madras and Mphasis collaborate to accelerate applied research in Quantum Computing
July 22, 2022	Financial Express	IIT Madras partners with Mphasis to accelerate applied research in Quantum Computing
July 22, 2022	Livemint.com	IIT Madras bags ₹21 crore grant for research in quantum computing
July 22, 2022	DataQuest	IIT Madras Launches New Smart Manufacturing and Digital Transformation Centre
July 22, 2022	TechCircle	IIT Madras bags ₹21 crore grant to accelerate research in quantum computing
July 22, 2022	United News of India	IIT-Madras signs MoU with Mphasis