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28/11/2023

CORPORATE TRAINING

PROGRAMMING WITH
QUANTUM COMPUTERS



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FROM OUR CEO



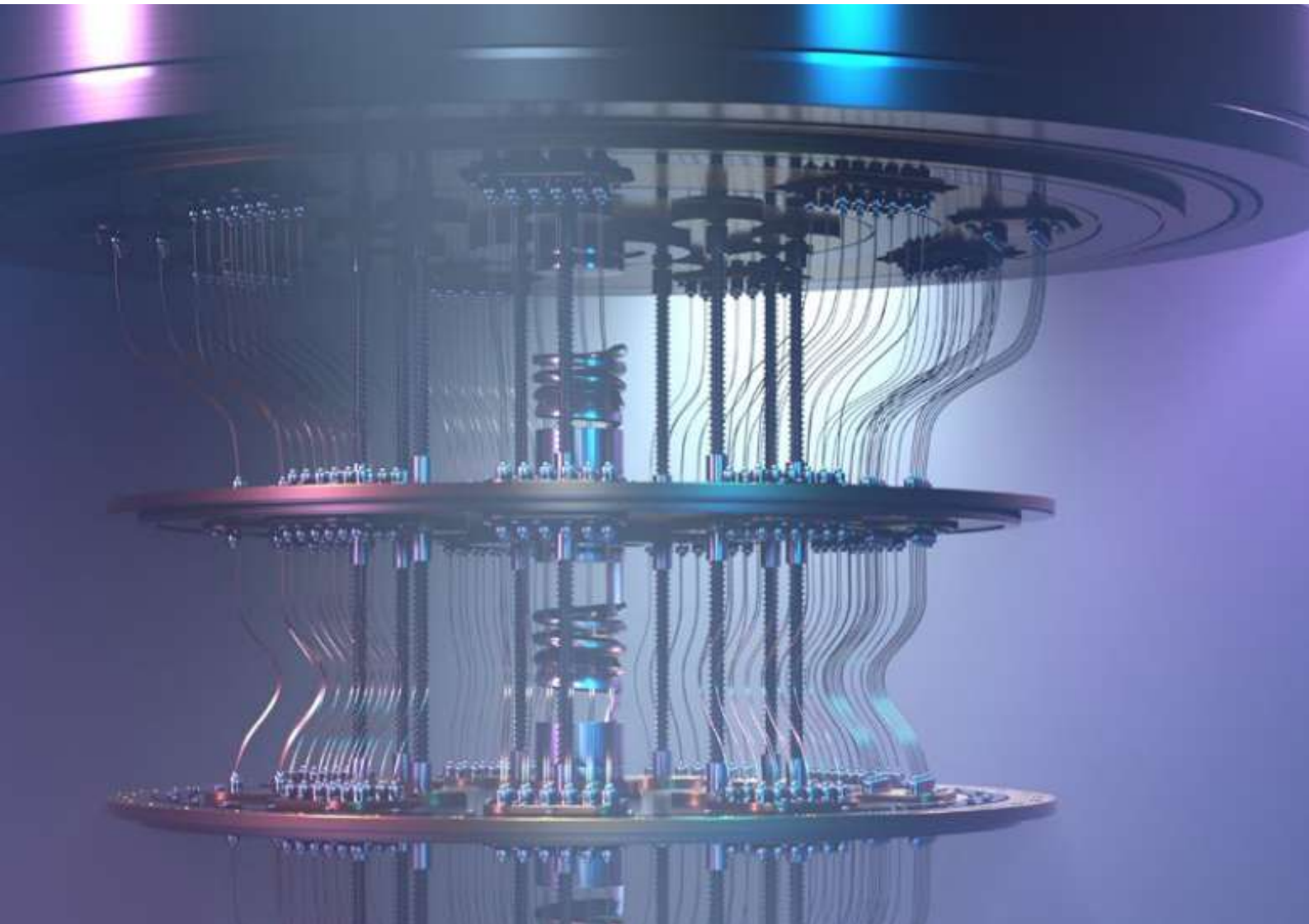
MANAN NARANG

"Imagine! A few years ago, I stood at the crossroads of my career, intrigued by the mysterious allure of quantum computing. Like many, I felt uncertain about this uncharted territory. However, taking the **quantum leap** and starting Silicofeller was a decision that **transformed my life**. With expert guidance and hands-on experiences, I immersed myself in the quantum world, unlocking its immense potential. Today, I lead **groundbreaking** quantum projects, shaping the future of technology. It is my pleasure to invite you all to join us at Silicofeller, where we'll embark on this incredible journey together, empowering you to create your own quantum **success story**. Let's embrace the limitless horizons of quantum computing - **together, we'll redefine what's possible!**"

THE QUANTUM REVOLUTION IS HERE

In the fast-evolving landscape of quantum computing technologies, the momentum of **exponential growth** is undeniable. The quantum revolution is not just on the horizon; it's here, and it's accelerating at an unprecedented pace. Those who seize the **first-mover advantage** in this transformative field are positioned to **shape the course of history**.

Amidst the remarkable growth and promise of the quantum revolution, the industry faces a critical challenge - a **shortage of skilled professionals** who can effectively harness the power of quantum technologies. As quantum computing becomes integral to solving complex problems across various sectors, the **demand for expertise in this domain is soaring**.



OUR PROMISE

At **Silicofeller**, we promise an **enriching learning experience** in our quantum computing courses. Our **expert instructors, cutting-edge curriculum,** and **hands-on approach** ensure that you gain a comprehensive understanding of quantum computing. From **real-world applications** to personalized attention, we are committed to helping you **unlock the potential of quantum technologies**. Our **commitment to excellence** drives us to deliver exceptional learning experiences in each of our courses. We take pride in offering comprehensive training programs that not only impart theoretical knowledge but also provide **practical skills** and real-world applications.

OUR DELIVERY

We are thrilled to share how our commitment to excellence in quantum technologies training has garnered recognition as one of the **Top 10 corporate training startups in India for 2022**.

Through our partnership with **IBM Quantum Educators Program**, we continue to lead the charge in delivering cutting-edge training in quantum computing. Our expert-led courses blend theory with practical applications, equipping professionals to harness the immense potential of quantum technologies. As we stand at the forefront of the quantum revolution, we extend our heartfelt gratitude to all our **educators** and **participants** for making this recognition possible.



OUR COURSES

1

INTRODUCTION TO QUANTUM COMPUTING

Unravel the Mysteries of Quantum Mechanics and Explore the Principles of Quantum Computation

2

QUANTUM COMPUTING FOR MANAGERS AND EXECUTIVES

Demystifying Quantum Computing and Harnessing its Strategic Potential

3

PROGRAMMING WITH QUANTUM COMPUTERS

Unleash the Power of Quantum Circuit Design and Algorithm Development

4

QUANTUM MACHINE LEARNING

Bridging Classical Machine Learning Techniques with Quantum Computing Paradigms

5

QUANTUM COMPUTING FOR CYBERSECURITY

Securing the Future with Quantum-Safe Cryptography and Quantum Cybersecurity Techniques



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**If you think you
understand quantum
mechanics, you don't
understand quantum
mechanics.**

-

Richard Feynman

3

PROGRAMMING WITH QUANTUM COMPUTERS

COURSE DURATION: 18 HOURS

PREREQUISITES

- No prior knowledge of quantum computing or quantum mechanics is required.
- Basic knowledge of linear algebra and complex numbers would be beneficial but not mandatory.

CANDIDATE PROFILE

- Students and enthusiasts curious about quantum computing and its underlying principles.
- Professionals seeking to explore the basics of quantum computing for potential applications in their fields.

LEARNING OUTCOME

- Gain an understanding of the fundamental principles of quantum mechanics.
- Explore the unique characteristics of quantum systems, such as superposition and entanglement.
- Learn the basics of quantum computation, including qubits and quantum gates.
- Understand the principles of quantum circuit design and operation.
- Explore quantum algorithms and their potential applications.
- Develop practical skills through hands-on exercises and interactive demonstrations.

SYLLABUS

MODULES

TOPICS

01

INTRODUCTION TO QUANTUM MECHANICS

The Quantum World: Superposition and Uncertainty
Entanglement: The Spooky Action at a Distance

02

QUANTUM COMPUTING BASICS

Quantum States and Qubits
Quantum Gates and Quantum Circuits

03

QUANTUM CIRCUITS AND ALGORITHMS

Building Simple Quantum Circuits | Quantum Circuit Execution and Measurement | Deutsch's Algorithm: A First Glimpse of Quantum Speedup | Quantum Teleportation: Harnessing Entanglement for Information Transfer

04

HANDS-ON LABS AND INTERACTIVE DEMONSTRATIONS

Practical exercises and interactive demonstrations using quantum circuits

05

REAL-WORLD APPLICATIONS OF QUANTUM COMPUTING

Exploring potential applications of quantum computing in various fields

06

QUANTUM COMPUTING CHALLENGES AND FUTURE PROSPECTS

Overcoming Challenges and Future Directions in Quantum Computing

07

NEXT STEPS AND FURTHER LEARNING OPPORTUNITIES

Addressing participant questions and fostering interactive discussions

ONLINE PRICING

Quantum Enterprise

₹5,000

Empower your entire enterprise with our pricing options for **201 or more** participants.

Quantum Synergy

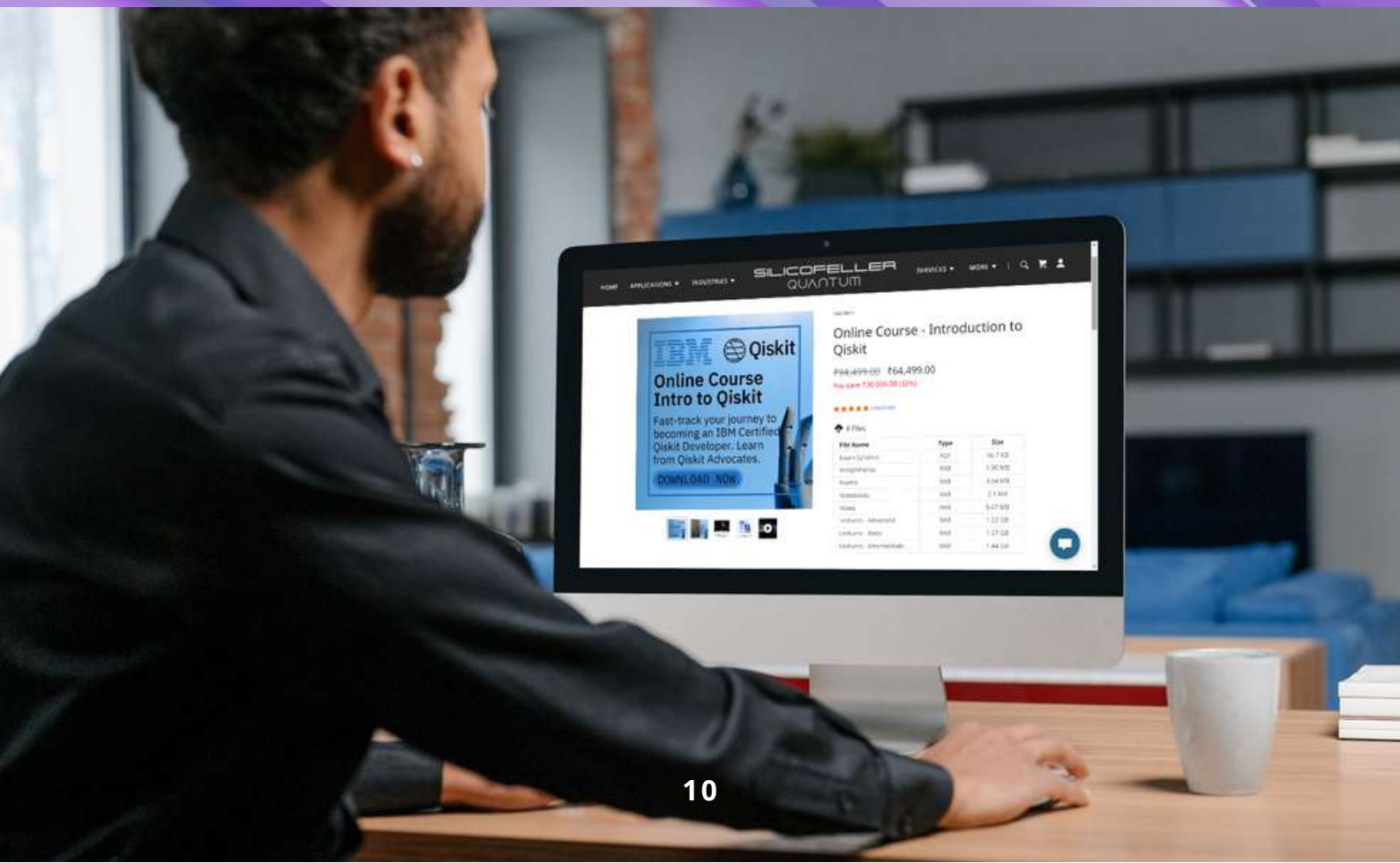
₹10,000

Designed for cultivating a quantum-ready workforce, our pricing for **51 to 200** participants

Quantum Foundations

₹15,000

Tailored to build strong quantum foundations, this pricing segment caters to groups of **10 to 50** people



ON-SITE TRAINING

Quantum Enterprise

₹20,000

Empower your entire enterprise with our pricing options for **201 or more** participants.

Quantum Synergy

₹25,000

Designed for cultivating a quantum-ready workforce, our pricing for **51 to 200** participants

Quantum Foundations

₹30,000

Tailored to build strong quantum foundations, this pricing segment caters to groups of **10 to 50** people



WHAT DO EXPERTS HAVE TO SAY ABOUT US?



**HONOURABLE ELECTRONICS MINISTER
OF INDIA, SHRI ASHWINI VAISHNAW**

"You guys are doing great work. Keep going!"



**COL. AK NATH,
EXECUTIVE DIRECTOR, CDAC PUNE**

"You are a very brilliant young entrepreneur and India needs more entrepreneurs like you to reach new heights. I wish you all the best!"



**NIR MINERBI,
CEO, CLASSIQ**

"Manan's leadership style is marked by his ability to foster collaboration, innovation, and a culture of excellence. He brings out the best in his team, encouraging them to think outside the box and push the boundaries of what is possible."



**DR. L. VENKATA SUBRAMANIAM,
IBM QUANTUM INDIA LEAD**

"India needs a lot of talent for quantum computing so it's a great thing that you are doing!"

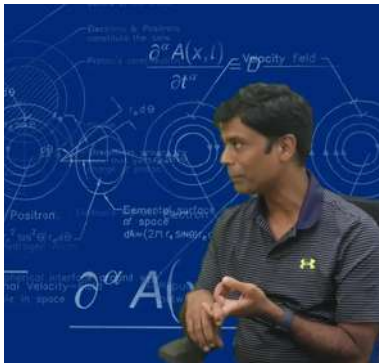
INSIGHTS



START YOUR QUANTUM JOURNEY WITH SILICOFELLER QUANTUM!

Join Manan Narang, the visionary founder and CEO of Silicofeller Quantum as he encourages individuals to embark on an exciting quantum journey.

[MORE INFO](#)



FIRESIDE CHAT

Join us for an insightful discussion on "**Unlocking Quantum Potential: Building India's Path to Quantum Talent Hub**" featuring Silicofeller Quantum CEO, Manan Narang, and **IBM Quantum India Lead, L Venkata Subramaniam**.

[MORE INFO](#)



HEAR FROM OUR LEARNERS

In this inspiring feedback video, Subhashish Barik, the instructor at Silicofeller Quantum, sits down with **Nabhesh Somkuwar**, a successful learner who achieved remarkable milestones after completing our Introduction to Quantum Computing course using Qiskit.

[MORE INFO](#)



OUR CLIENTS

We are delighted to announce that **Dihuni**, a pioneering force in Artificial Intelligence (AI), Data Center, and Internet of Things (IoT) solutions, has chosen Silicofeller as its strategic partner for the groundbreaking **Qubrid** platform.

[MORE INFO](#)

POTENTIAL IMPACT ON VARIOUS SECTORS



ARTIFICIAL INTELLIGENCE

Quantum computing's potential impact on AI is transformative, enabling faster data processing, optimizing machine learning models, and advancing AI-driven applications for unprecedented intelligence and innovation.

[MORE INFO](#)



MATERIAL SCIENCE

Quantum computing's precision in simulating atomic and molecular behavior accelerates material discovery, revolutionizing industries like electronics and renewable energy with novel materials and unparalleled properties.

[MORE INFO](#)



HEALTHCARE

Quantum computing's power in drug discovery, personalized medicine, and genome analysis holds the potential to revolutionize healthcare, improving patient outcomes and streamlining systems for transformative advancements.

[MORE INFO](#)

OUR PARTNERS

INDUSTRY PARTNERS

CLASSIQ | C-DAC PUNE | QUANTWARE



ACADEMIC PARTNERS & INCUBATORS

IIT BOMBAY | DATA SECURITY COUNCIL OF INDIA | NATIONAL-CENTRE OF EXCELLENCE IN ENTREPRENEURSHIP



ACCELERATORS

IBM QUANTUM EDUCATORS PROGRAM | MICROSOFT FOR STARTUPS | AWS ACTIVATE | STARTUP INDIA



Microsoft
for Startups

#startupindia





vt launches 'quantum communication'...
 re: Rs 10L for ethical hackers who ca...
 tum communication refers to communication channels that take advantage...
 & in theory, is much more secure than traditional systems.



SILICOFELLER QUANTUM

