



**M.Tech.**

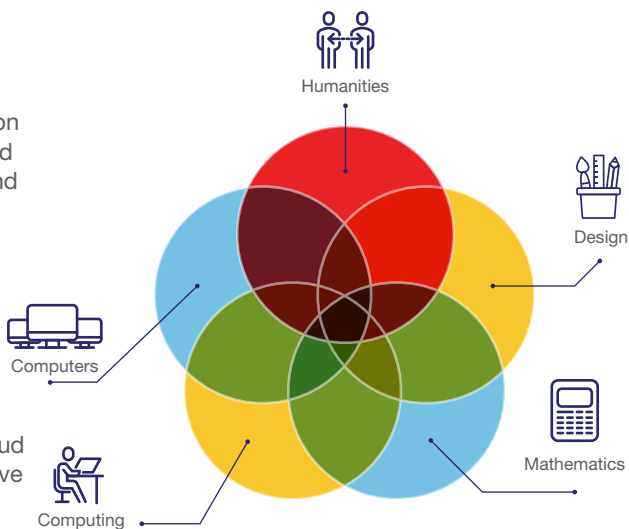
# Cloud Computing For Working Professionals



# PROGRAM INTRODUCTION

Cloud computing adoption is poised to be a major driver of the Indian economy by 2026, with projections of a \$380 billion GDP boost and the creation of 14 million jobs within the next 5 years, fueled by a growing digital population and increased digitization.

To seize these opportunities, consider M.Tech. Cloud Computing, a four-semester programme for working professionals, offering comprehensive expertise in Big Data, Distributed Computing, Cloud Network and Security, Cloud-native application development, Cloud Economics, and more.



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## PROGRAMME OBJECTIVES

- ▶ Grasp Cloud platform design choices from a provider viewpoint.
- ▶ Learn Cloud-native app design and APIs with practical experience.
- ▶ Analyze, apply best practices for Cloud app deployment, management, and operations.
- ▶ Interpret pricing, evaluate cost optimization, and design technical solutions.
- ▶ Address security issues and apply best practices for Cloud apps and data.



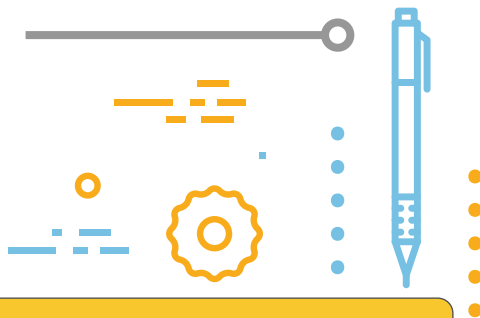
## STUDENT LEARNING OUTCOMES

UPON PROGRAMME COMPLETION, LEARNERS WILL BE ABLE TO:

- ▶ Design and configure Cloud infrastructure and platform services.
- ▶ Create Cloud-native app prototypes or migrate existing solutions.
- ▶ Manage the entire app lifecycle from development to operations.
- ▶ Offer security recommendations for use cases.
- ▶ Assess Cloud service fitment and utilize API-enabled services.
- ▶ Design cost-optimized solutions based on use cases and billing plans.

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# PROGRAMME CURRICULUM



First Semester	Second Semester
Introduction to Parallel and Distributed Programming	Cloud Infrastructure and Systems Software
Network Fundamentals for Cloud	Distributed Computing
Big Data Systems	Elective 1
Cloud Computing	Elective 2
Third Semester	Fourth Semester
Elective 3	Dissertation
Elective 4	
Elective 5	
Elective 6	
Pool of Electives	
Data Storage Technology and Networks	Introduction to Data Science
Security Fundamentals for Cloud	Infrastructure Management
Cloud Economics	Stream Processing and Analytics
API-driven Cloud Native Solutions	Secure Software Engineering
DevOps for Cloud	Scalable Services
Design and Operation of Data Centers	Edge Computing
Data Warehousing	

*Choice of Electives is made available to enrolled students at the beginning of each semester.  
A limited selection of Electives will be offered at the discretion of the Institute.*

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# LEARNING METHODOLOGY



## CLASSROOM SESSIONS

- Classes will be conducted by BITS Pilani faculty over weekends. A typical weekend classroom session per subject is of 1.5-2 hours duration. Since students typically pursue 4 courses in a semester, they will be expected to attend approximately 4 classroom sessions over a weekend. These classroom sessions will be typically scheduled over 16 weekends per semester.
- Classroom sessions for each course will be conducted through live online sessions which can be accessed by the learners from any location using a computer and a high-speed internet connection. Even for courses that will be taught through live online sessions, learners will get an opportunity to interact with expert faculty using interactive, technology-enabled virtual classrooms. These online classrooms offer similar levels of interactivity as regular classrooms.

The schedule of the classroom sessions will be announced at the beginning of each semester.



## DIGITAL LEARNING

- Learners can access engaging learning material at their own pace which lecture videos, student notes, curated content etc. for select courses, through a learning management platform that is engaging and mobile-friendly.

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# LEARNING METHODOLOGY



## Attend online lectures over weekends

- Lectures are conducted live via online classes. These lectures can be attended via the internet using a computer from any location. These online classrooms offer similar levels of interactivity as regular classrooms at the BITS Pilani campus.
- The class schedule is announced within 1 week of completion of the admission process.
- The online lectures are conducted usually over weekends for a total of 7-8 hours per week. If you miss a lecture, you can also access the recorded lecture on the internet.



## DIGITAL LEARNING

- Learners can access engaging learning material at their own pace which lecture videos, student notes, curated content etc. for select courses, through a learning management platform that is engaging and mobile-friendly.

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# ELIGIBILITY CRITERIA

- ▶ Employed professionals holding an Integrated First Degree of BITS or its equivalent such as B.E./M.Sc. and relevant exposure to systems disciplines, with at least 60% aggregate marks and minimum one year work experience after the completion of the degree in IT services and products industry, are eligible to apply.
- ▶ Minimum one year programming experience in C, Java or an equivalent language in backend systems OR a degree level course in a C/Java Programming Experience in Relational Database Management Systems with understanding of data schema, SQL queries and writing programs that access databases.
- ▶ It is strongly preferred that professionals have taken the following basic courses: Computer Organisation and Operating Systems Computer Networks Data Structures and Algorithms.

## FEE STRUCTURE

The following fees schedule is applicable for candidates seeking new admission during the academic year 2023-24:

Application Fees  
(one time) :INR 1500

Admission Fees  
(one time) :INR 16,500

Semester Fees  
(per semester) :INR 63,500

### EMI WITH 0% INTEREST AND 0 DOWN PAYMENT

Instant EMI option with 0% interest and 0 down payment is now available that allows you to pay programme fee in an easy and convenient way.

- Instant online approval in seconds
- Easy & Secure online process using Aadhaar and PAN number
- Anyone with a Salary Account with Netbanking can apply
- Option to submit fee using easy- EMI with 0% interest and 0 down payment

[Click here](#) to learn more

All the above fees are non-refundable.

**Important:** For every course in the program institute will recommend textbooks, students would need to procure these textbooks on their own.

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## HOW TO APPLY

- ▶ [Click here](#) to visit the Online Application Center. Create your login at the Online Application Center by entering your official HCL Email ID only and create a password of your choice. Once your login has been created, you can anytime access the Online Application Center using your official email ID and password.
- ▶ Begin by clicking on Step 1 - 'Fill/ Edit and Submit Application Form'. This will enable you to select the programme of your choice. After you have chosen your programme, you will be asked to fill your details in an online form. You must fill all details and press 'Submit' button given at the bottom of the form.
- ▶ Now, click on 'Pay Application Fee' to pay INR 1,500/- using Netbanking/ Debit Card/ Credit Card
- ▶ Finally, click on 'Upload & Submit All Required Documents'. This will allow you to upload one-by-one all the mandatory supporting documents such academic certificates and transcripts, photograph, etc. and complete the application process. Acceptable file formats for uploading these documents are .DOC, .DOCX, .PDF, .ZIP and .JPEG
- ▶ Upon receipt of your Application Form and all other enclosures, the Admissions Cell will scrutinise them for completeness, accuracy and eligibility.
- ▶ Admission Cell will intimate selected candidates by email within two weeks of submission of application with all supporting documents. The selection status can also be checked by logging in to the Online Application Centre.

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## DISCLAIMER

Ever since it was declared as a Deemed to be University in 1964, BITS Pilani has been offering higher education programmes in science and technology, and has earned an enviable reputation for its innovations in this sphere. The Work Integrated Learning Programmes (WILP) of BITS Pilani constitutes a unique set of educational offerings for working professionals. These programmes, which BITS began to offer in 1979, have, over the years, evolved along the lines envisaged in the National Policy on Education, 1986.

The WILP are rigorous higher education programmes in technology areas, designed keeping the evolving needs of industry in view, and meant for working professionals in their respective domains. The very intent is to deliver the education at the workplace, in order that the greatest degree

of work integration of the education is achieved, and thus the WILP are very distinct in philosophy and pedagogy from open, distance learning programmes. Though it is incorrect and improper, at times the WILP are compared to ODL programmes. Accordingly, it has been our constant endeavor to engage with the regulator, and provide all necessary information about these programmes.

The WILP have been well received, and accepted by industry, because of the high quality of the programmes in terms of the curriculum and the instruction, and also because of the high degree of work integration, which results not only in up gradation of knowledge, but also in up skilling, and productivity increase.

HCL\_05/12/2023