

TECHFEST 2021-22

TATA COMM - DATATHON FOR BHARAT

BACKGROUND:

A part of the Tata Group, Tata Communications (NSE: TATACOMM; BSE: 500483) is a global digital ecosystem enabler powering today's fast-growing digital economy in more than 190 countries and territories. Leading with trust, it enables the digital transformation of enterprises globally with collaboration and connected solutions, core and next gen connectivity, cloud hosting and security solutions and media services. 300 of the Fortune 500 companies are its customers and the company connects businesses to 80% of the world's cloud giants. Its Tier-1 IP network, wholly-owned subsea fibre backbone and consortium cables' global network carries ~30% of the world's internet routes.

Tata Communications has a national fibre network across India that extends over 200,000 Km across India. We have the capability to provide connectivity to business in over 500 towns and cities across India. It is well known that India will urbanize faster in the coming years and we expect Tier 3 and Tier 4 towns across India to lead this growth. Analysts estimate 40% of India's population to reside in urban areas by 2030.

PROBLEM STATEMENT:

Tata Communication portfolios are mapped to fast-track Digital Transformation Journey across Cloud and Data Centre, Business Collaboration, Managed Security, Network, Mobility, Voice, and Media.

Participants are expected to build a projection of the business potential for each of the 4000 regions for the next 15 months using time series forecasting techniques. Participants are free to use any technique provided it is suited for the variety and volume of data provided.

DATA PROVIDED:

We have identified business potential data for 4000 key locations from 2013 till 2020. Currently, this data is made available monthly for each of the 4000 locations. These locations have been anonymized to ensure that participants focus on modeling using only the data provided. It can be assumed that this data contains potential outliers, and some amount of exploratory data analysis (EDA) would need to be performed.

Monthly data from 2013 to 2018 will be provided as training data while data for 2019 will be withheld as test data for the public leaderboard and data for 2020 will form the private leaderboard.

RULES:

- Every team has to **register online** on the Techfest website for the competition. A **Team ID** will be allocated to the team on registration which shall be used for future references.
- A team can register at any point of time before **21st November 2021** and submit the final abstract and video (as mentioned in the [structure](#)).
- The decision of the organizers and/or judges shall be treated as final and binding on all. Techfest has all the rights to verify the identity and accuracy of the details provided by the participants.
- Techfest, IIT Bombay will hold no responsibility for any late, lost, or misdirected entries.
- The idea presented by the teams should be original (not protected by patent/copyright/technical publication by anyone else).
- Note that at any point in time the latest information will be that which is on the website.
- All modes of official communication will be through the **Techfest e-mail**.
- The IP rights in the content(s) of the submitted entries shall be assigned to **TATA Communications**.

COMPETITION PLATFORM:

The competition will be conducted on the **DPHI** platform. After registering on the official Techfest website, hop onto the link given below and register using the same credentials.

The training data, evaluation dataset, and a sample submission are uploaded on the same for you to reference. It is also equipped with a dynamic leaderboard for you to track how your solution fares with respect to the other teams.

Platform Link:

<https://dphi.tech/challenges/iit-bombay-techfest-tata-communications-datathon/165/overview/about>

COMPETITION TIMELINE

Last Date of Registration	21 November
Submission Deadline for Round 1	21 November
Round 1 Results Announcement	23-24 November
Submission Deadline for Round 2	12 December
Presentation for Round 2	17-19 December

STRUCTURE

ROUND 1:

During this phase, each team would build their model and upload the results on the submissions platform. It would be compared against the test data held back and a ranking of participants would be generated on the basis of accuracy achieved. Mean absolute percentage error (MAPE) would be used for evaluating model performance and results would be displayed on the portal with participant rankings. The top 10 teams from this phase would be shortlisted for round 2. Final shortlisting would be done on the basis of the private leaderboard. Only participant ranks would be displayed for the private leaderboard

The last date for Round 1 Submission is **21 November**.

ROUND 2: FINAL SUBMISSION AND PRESENTATION

The top 10 teams would be given time to refine their model during this phase and present their final model. Participants must also prepare a brief presentation that summarises their model. Your model would be judged on how original, effective and scalable your approach is. During this phase, the team would also be assigned mentors from Tata Communications data science teams to act as a sounding board. The mentors would not provide any further context to the project and only help in refining the approach or presentation

Evaluation of round 2 would be based on 60% model performance and 40% on the scores of the Judges Panel.

Round 2 Submissions must be completed by **12 December**. Post which you will be assigned a slot for presentation to the Judges Panel. Evaluation criteria for this would be shared at a later stage.

TEAM SPECIFICATIONS:

- A team may consist of a maximum of 4 members.
- Students from different educational institutes can form a team.

Eligibility: All students with a valid identity card from their respective educational institutes are eligible to participate. Students who have worked as interns with Tata Communications or any of its subsidiaries in the past 12 months would need clearance from the organizers before registration.

INTELLECTUAL PROPERTY RIGHTS:

*The IP rights in the content(s) of the submitted entries and related tool/ process/ software shall be assigned to **TATA Communications Limited** without any further consideration. **TATA Communications Limited** shall have the rights to implement and commercialize the innovative solution submitted in the entries and prototype on the industrial and manufacturing levels.*

Participants must send their signed Declaration Form to datathon@techfest.org to be considered eligible for participating in the competition. Otherwise, they will be disqualified.

The declaration must contain the above paragraph and be signed by the team leader, or the participant in case of individual participation.

PRIZE

The prize money will be awarded to the top 3 winners via **NEFT** and will be processed within 30 working days after receiving the prize money from sponsors. The top 10 teams will get a **certificate of excellence**. Winners have to mail their bank details (immediately after the announcement of results) to kunal@techfest.org, in the format specified below.

Tata Communications will also offer **3-month full-time internships** to work on ML projects with a stipend of **Rs. 25,000 per month** for up to 4 members in the winning team.

The internship would need to be availed in a single block of 3 months within 12 months of the results being declared. The internship period should not overlap with academic calendars. In the event winners are unable to avail of internships for the full 3 month period, the stipend payout will be limited to the number of days of actual internship.

Format of Mail

Subject: Tata Comm Datathon, Team Id, Position (example - Tata Comm Datathon, DT211003, 1st Position)

Body of mail

1. Account Holder's Name
2. Account Number
3. Bank name and Branch name
4. IFSC Code
5. Photograph of Bank Passbook as a proof