

TECHFEST 2021-22

RESEARCHER DISCOVERY PLATFORM

TASK

Participating teams must develop a tool which can scout for faculty members or researchers active in a given research area. The participating teams must analyse potential techniques to crawl online to identify and compile profiles of all such matches.

No ready dataset will be made available. Teams can use sample research themes and public domain information to develop, validate, and demonstrate the solution.

PROBLEM STATEMENT

Develop a tool which can autonomously identify faculty members/researchers active in specified areas of research and generate a short profile for each candidate (a sample is shown in [Appendix I](#)). The approach may include scanning through websites of academic (higher education) institutions and professional networks, crawling through or integrating with scholarly repositories, such as Google Scholar, Google Patent, Scopus, and Semantic Scholar, and interfacing with relevant service providers.

The scope for competition is limited to pre-specified Indian engineering and technology research institutions (listed in [Appendix II](#)) and examples of research themes include computer vision, metal coating, and industrial IOT.

GENERAL 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 **7th November 2021** and submit the final abstract and video (as mentioned in the [structure](#)).
- The decision of the organisers 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 Sons**.

STRUCTURE

1. After registration closes, Tata Sons Group Innovation Office (GIO) will organize a webinar to discuss the problem statement and answer any queries from participating teams.
2. The competition will take place in 2 rounds

ROUND 1

- Each team needs to submit a proposal (not exceeding 3 pages), including a survey of relevant techniques.
- Each team needs to submit a demo in the form of tool MVP* (Minimum Viable Product) capable of crawling a faculty webpage to extract profile information mentioned in Appendix I.
- A panel of experts will review each proposal to shortlist top (~20) teams.

Last date for Round 1 Submission is **7th November**.

**Minimum Viable Product implies that if your tool can crawl only a limited number of the said websites, that will be considered as a valid submission.*

ROUND 2

- Each team needs to submit a detailed project report (not to exceed 10 pages).
- Each team needs to submit a demo of a complete working solution capable of crawling webpages of institutions and integrating with databases and service providers to extract the profile information.
- Each team needs to submit all supporting items, including software, (algorithms, codes), all relevant IP information (e.g., if the solution uses open source or licensed modules), benchmarking data, results for given queries, and instructions for using the tool.
- A panel of experts will review each submission to announce the winner(s).

Round 2 Submissions must be completed by **5 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.

PLATFORM DETAILS

The details of the platform will be communicated to the participants within a few weeks of competition launch.

COMPETITION RULES AND TEAM SPECIFICATIONS

1. Challenge is open to bachelor and master's degree students of any discipline
2. A team can comprise no more than 4 members. Students from different educational institutions can form a team.
3. Each team needs to nominate a point-of-contact member
4. Each team needs to submit all items listed above in Round 1 evaluation requirements before 7 November.

5. Mentors from Tata can be assigned to a team for guidance, if so desired by the team.
6. Originality of work is essential, and application will be disqualified, if found otherwise.
7. Each team needs to submit all items listed above in Round 2 evaluation requirements before 5 December.

INTELLECTUAL PROPERTY RIGHTS

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

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

SUBMISSION

1. The participants need to submit their working code files with details on how to use the functions or weight files (if any, in case of ML-based models)
2. We would be using our test dataset (which won't be shared with the teams) to evaluate the model's accuracy
3. In ML-based models, teams need to share the training dataset and the weight files used for prediction. A two-page document describing the model's working, specifications and capabilities. It should also include the direction to run the code.

PRIZE

The prize money will be awarded to top 3 winners via **NEFT** and will be processed within 30 working days after receiving the prize money from sponsors. 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.

FORMAT OF MAIL

Subject: Researcher Discovery Platform, Team Id, Position (example - Researcher Discovery Platform, RD211003, 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

Appendix I: Profile Sample

1. Name
2. Affiliation (institution, department, labs)
3. Prior affiliations, if any
4. Education, including degree(s)
5. Research interests
6. List of patents, if any.
7. List of publications
8. List of projects

Appendix II: List of Institutions

List of institutions for scouting:

1. All IITs
2. All NITs
3. All IIITs
4. All CSIR labs