

IRD Students Startup Action & Discover & Learn (1-2-3-4) Call-2020

“Learning to Transform Knowledge to Products” is the key objective of the IRD Students Startup Action & to enhance research aptitude among undergraduate, & graduate students and increase the component of ‘learning by research’ is the goal of Discover & Learn (1-2-3-4) project scheme. Involvement of students in the below mentioned thrust areas at a very early stage of their stay at the institute and working jointly with senior students & Industry will expose the students to the excitement of research. In addition, continuity of research project with a particular objective is expected to result in meaningful research output, which will add to profile of the students.

Project proposals are invited from students in all the research areas including the mentioned thrust areas from CERCA, Mastercard, and Nokia:

Industry	Areas
CERCA	<ol style="list-style-type: none"> 1) A detailed study and analysis of Carbon footprint of old Power plants and recommendations 2) Climate-health co-benefits on air pollution mitigation 3) AI/ML applications on estimating emissions from target sources (e.g. power plants, brick kilns, vehicles, industry, etc.)
Mastercard	<ol style="list-style-type: none"> 1) Digitization of Healthcare 2) Digital inclusion for Customers, for Merchants 3) Getting Capital for Small Businesses 4) Open Banking Information (details in the attached Annexure I)
Nokia	<ol style="list-style-type: none"> 1) Image processing & Computer Vision in the area of automation of services sector 2) Semantics based NLP techniques to seamlessly integrate to end user applications. 3) Reinforcement learning techniques effecting practical use cases in Telecommunication & IT industries. 4) 4. Geo Analytics improving or by utilising services of IT & Telecom (keeping a view of holistic broadband infrastructure of present & future setup)

IRD Student Startup Action: A group of students preferably in the final year of the B.Tech, M.Sc, M.Tech or Dual degree programme can formulate a proposal. The selected teams will be given a seed grant of Rs. 2 Lakh per year from IRD and respective Industry for 2 years. The project will be evaluated yearly. IP and other output generated by the start-up will be owned by the start - up team with 5 % equity for the institute. The start-up activity will be facilitated by a faculty mentors & Industry mentors. The faculty mentor and students who are already part of a startup action project

in the previous calls will not be considered. There is further scope for incubation of the Startup in Technology Business Incubator (TBI) Program of FITT-IITD.

Discover & Learn (1-2-3-4): A group of 4 students each from 1st, 2nd, 3rd, 4th and 5th year of ongoing B.Tech. and M.Tech. programme (5th year for Dual degree/Integrated degree) may propose the project under the guidance of a faculty mentor. As the 4th/5th year student will be graduating/post graduating respectively, an additional student from the 1st year can be co-opted every year so that the strength of the team remains unchanged. Both IRD and respective Industry will provide each up to Rs. 2 Lakh per year to the faculty mentor for purchase of consumables etc. Depending upon the progress and performance, the duration of the project may go up to 4 to 5 years. The projects will be evaluated yearly. The faculty mentors and students who are already part of a project in the previous calls will not be considered. Addition and deletion of students be done with prior permission of mentor and IRD in new academic calendar year.

The closing date for proposal submission is 30th November, 2020 (Monday).

The proposal in the given format should be submitted to Associate Dean (R&D) & R&D

Co-ordinator by email latest by 30th November, 2020 (Monday).

assocdeanrnd@admin.iitd.ac.in & rnd_coordinator_aht@ird.iitd.ac.in

Annexure-I

Matocard-Problem Statements

- 1. Digitization of Healthcare :** How can we improve patient experience by reducing paperwork and/or creating interoperability to benefit healthcare ecosystem?

How can we help hospitals better manage Payment assurances?

- 2. Digital inclusion:** Considering the rapid shift towards 'Digital' post Covid, the increasing digital divide will create significant problems :

For consumers: Whether it is online commerce, or other services such as Education; digitization is impacting various consumer segments (Age, Gender, and Income) in different ways. How can we support these consumer segments e.g. Economically Disadvantaged, Elderly consumers etc.?

For Merchants: The commerce is getting more centralized towards large players (such as Amazon), and will impact small businesses significantly (due to lack of digitization, ability to access and consume analytics, advertising, payments, chargebacks etc). How can we enable small business to compete with large enterprises in digital space?

- 3. Getting Capital for Small Businesses:** Financing for SMEs, especially in current times, is a big problem in India and across the world. Financing, both working capital as well as lending, depend on small businesses being financially included in the economy as credit scoring models rely on this information to assess the risks/rewards.

How can we create reliable and scalable credit scoring models that meet the requirements of financial services institutions at low cost?

- 4. Open Banking Information:** Consumers, through their digital interactions with their banks and wallets, generate an increasing amount of financial data while it is often hard to maintain oversight and unlock new value and use cases with these vast and diverse set of knowledge.

What are the key pain points that open banking data can address and what products can emerge from their opportunities that have potential for disproportionate scale?

IRD Student Startup Action Proposal

Applicant(s) Details

Entry No.	Name	Department	Signature

Add more rows, if required

Faculty Mentors

	E. Code	Name	Department	Signature
Mentor				
Co-Mentor				
Industry Name				

Startup Title

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General Area of Activity & Theme area from Industry (if applicable)

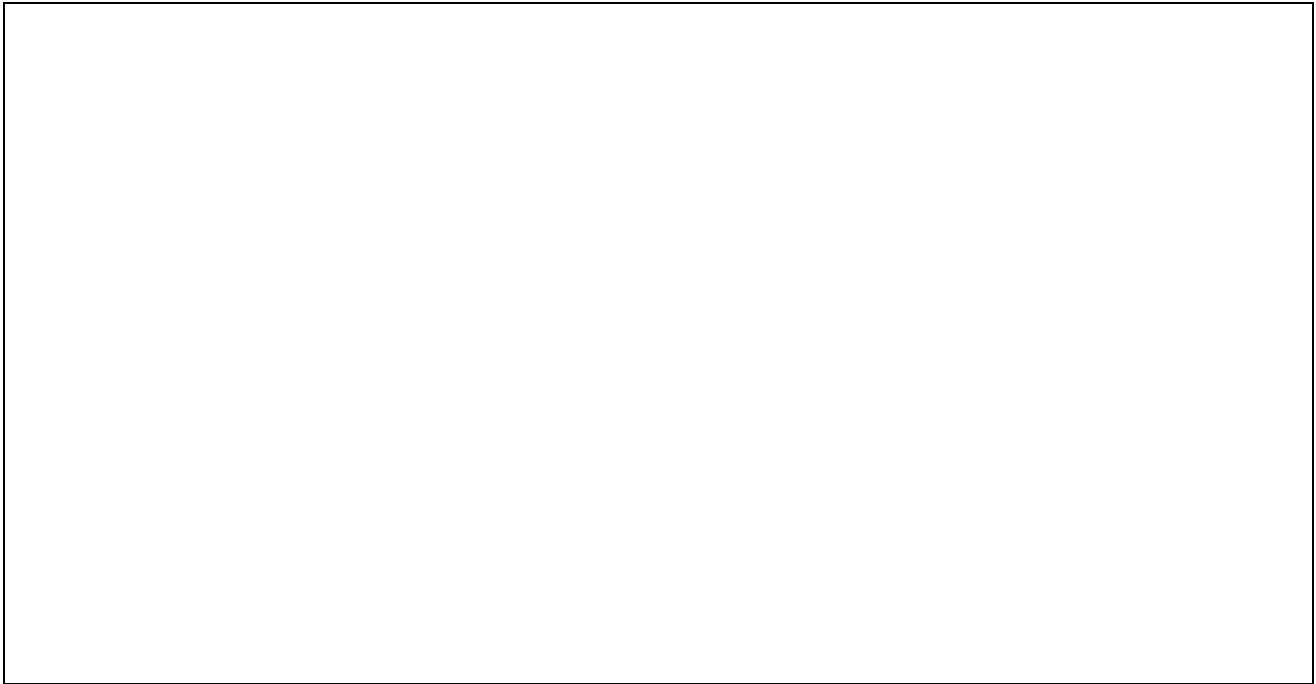
Business Idea

(Max. 2000 Characters)

Product/Service Description

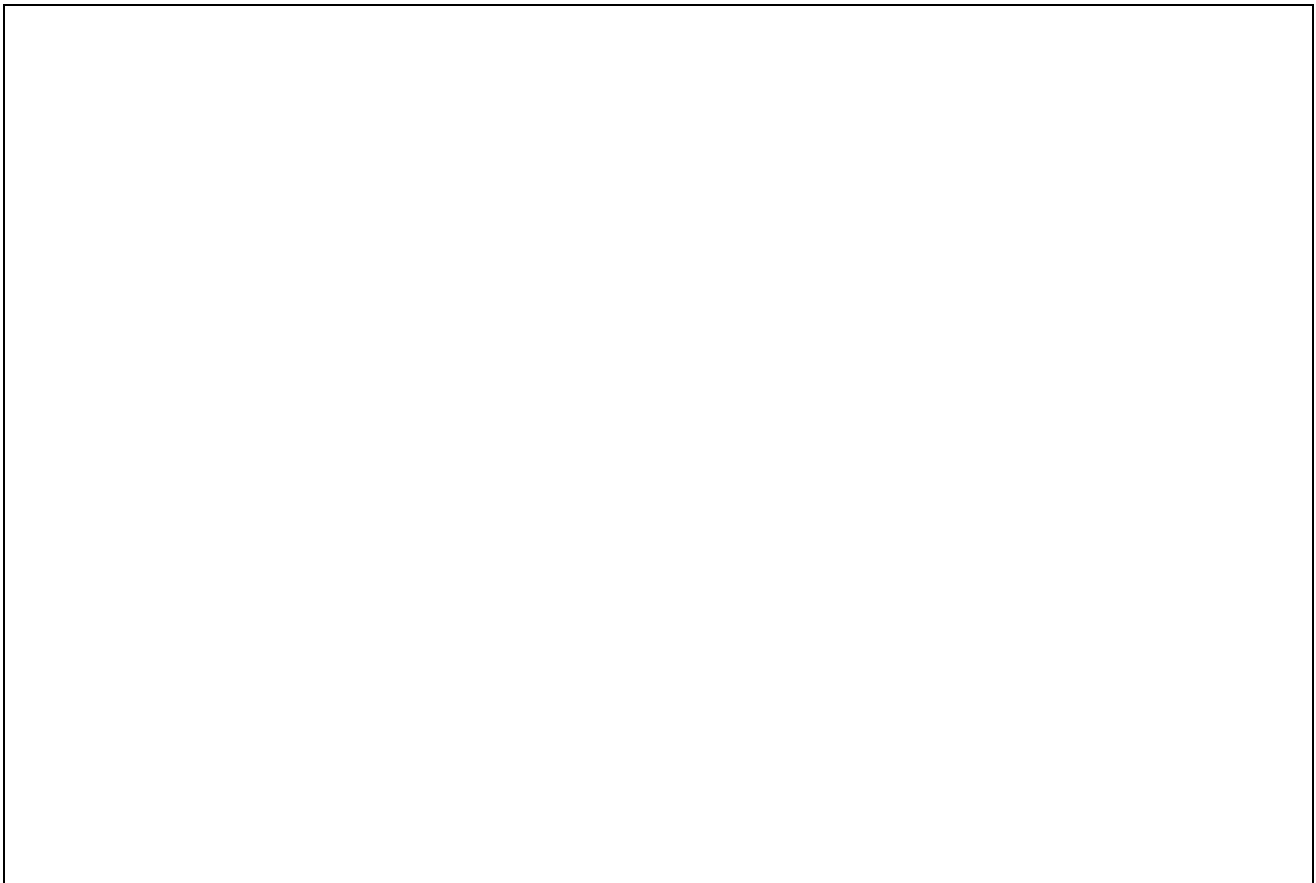
(Max. 700 Characters)

Main Objectives To Be Achieved in First Year



(Max. 500 Characters)

Commercial Potential of the Product/Service



(Max. 1500 Characters)

Capabilities and Expertise of Team Members

(Max. 500 Characters)

Budget Details (IRD Support Rs. 2 Lakh and/or Industry Support Rs. 2 Lakh)

Budget Head	Amount (Rs.)
Contingency	
Consumables	
Any other budget head	
TOTAL	

Budget Justification, if any

(Max. 300 Characters)

Recommendations/Comments From Faculty Mentor(s)

Name :

Signature :

(Max. 500 Characters)

Approval From Head of the Dept./Centre/School of Faculty Mentor

Name :

Department :

Signature :

IRD Discovery & Learn Scheme for B.Tech & M.Tech. (Dual degree/Integrated degree)
Students
Project Proposal

Applicant Details

Description	Entry No.	Name	Department	Signature
5 th Year Student				
4 th Year Student				
3 rd Year Student				
2 nd Year Student				
1 st Year Student				

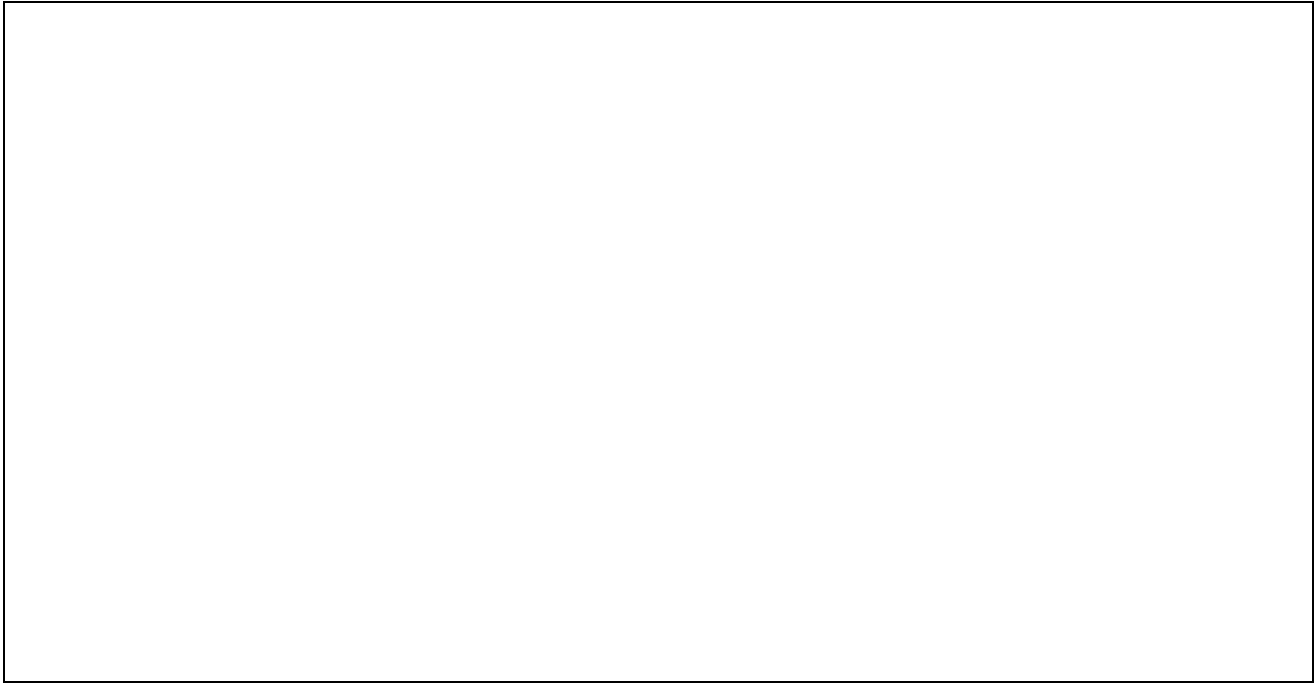
Faculty Mentors

Type of Mentor	E. Code	Name	Department	Signature
Mentor				
Co-Mentor				
Industry Name				

Project Title

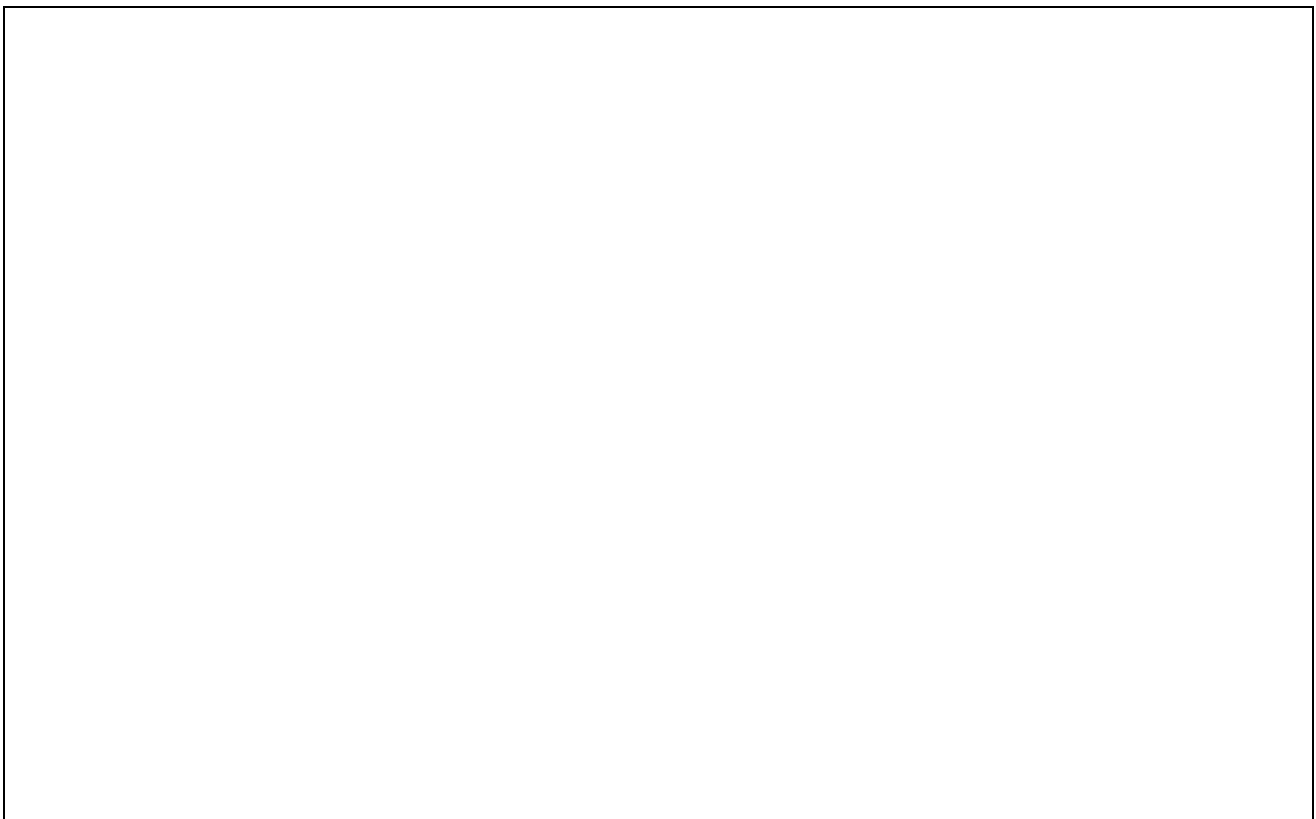
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Objectives



(Max. 500 Characters)

Importance of the Project



(Max. 750 Characters)

Background

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(Max. 1000 Characters)

Relevant References

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(Max. 500 Characters)

Work Plan

Year 1	
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Year2	
Year 3	
Year 4	

(Max. 500 Characters for each year)

Expected Outcome of the Project

(Max. 500 Characters)

Budget Details (IRD Support Rs. 2 Lakh and/or Industry Support Rs. 2 Lakh)

Budget Head	Year 1	Year 2	Year 3	Year 4	Total
Contingency					
Consumables					
Travel					
TOTAL					

Budget Justification, if any

(Max. 300 Characters)

Recommendations/Comments From Faculty Mentor(s)

Name :

Signature :

(Max. 500 Characters)

Approval From Head of the Dept./Centre/School of Faculty Mentor

Name :

Department :

Signature :