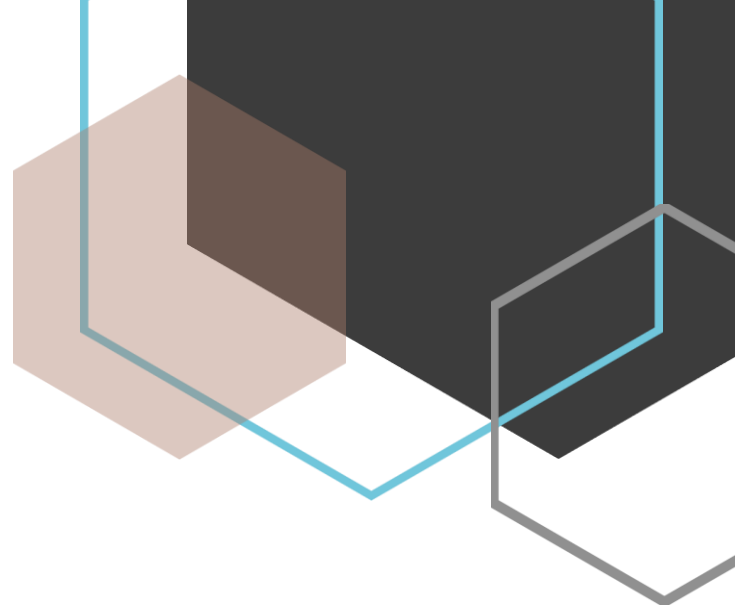




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IMPLEMENTATION FRAMEWORK TALENT CO-CREATION LAB

UNIVERSITY OF MADRAS, INDIA

Integrating Talent Development into Innovation Ecosystems in Higher Education

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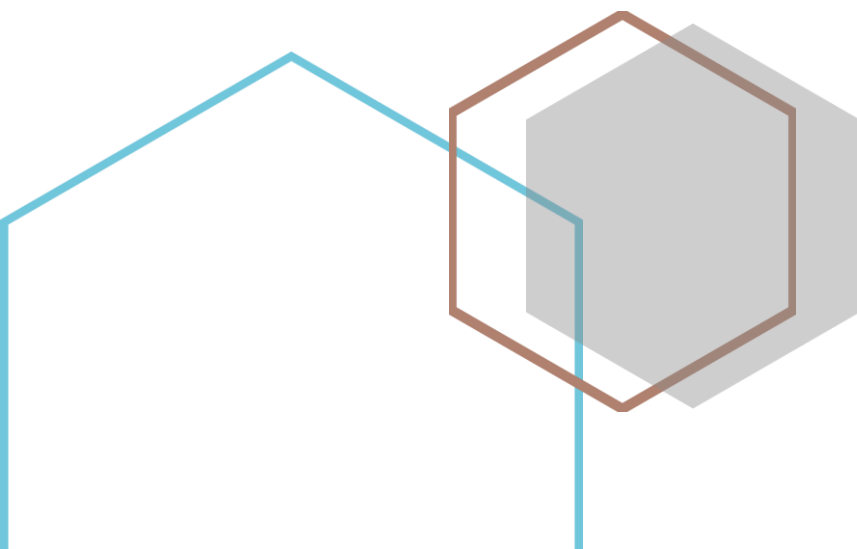




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The framework outlines the design of the operations of the Talent Co-Creation Lab created at the University in the frame of the INNOTAL project. It clarifies the Lab's place within the University structure, its functioning, management and activities, as well as applicable rules and regulations.



ACTIVITIES OF THE LAB

University of Madras has established a well-structured system and policies to involve external stakeholders, industries, non-profit and public sector organizations in the process of building students' skills and knowledge, offering internships, improving employability, and enhancing institution - industry collaboration. This is achieved through the work of various centres such as the Board of Studies, the Curriculum Development Committee, the University Industry Community Interaction Centre (UICIC), the Technology Business Incubator and the University Students Advisory Bureau (USAB).

The Talent Co-Creation Lab will involve business in closer interaction with the existing centres of the University and will manage a variety of activities, based on the priorities of University of Madras, including:

- to offer training programmes for students with support from external stakeholders
- to design and deliver foundation courses in Entrepreneurship tailored to the needs of particular Departments
- to foster entrepreneurship amongst students and faculty members
- to organize train the trainer programmes in order to involve more stakeholders
- to encourage new ideas and provide support to translate ideas into students' enterprises
- to promote linkages between university, research institutes and industry/external stakeholders
- to commercialise research outputs
- to build / establish a strong network between the Lab and the external stakeholders in order to improve entrepreneurship skills
- to motivate and support the faculty members wishing to integrate entrepreneurship and innovation training in study programmes or co-curricular activities
- to organize entrepreneurship or innovation training sessions for students in various disciplines.

POSITION OF THE LAB WITHIN THE UNIVERSITY STRUCTURE

Initially, the Lab will be established within the existing facility of the Computer Networking Centre at the Human Resource Development Centre (HRDC). In this Centre, various academic and professional trainings and skills development programs are offered to faculty members and research students. The Lab will function in the Main Administrative Building where it will get clear visibility as many students and external stakeholders are regularly visiting this building in large numbers.



ORGANIZATION OF THE PHYSICAL PREMISES AND WORKING SPACE FOR THE TALENT CO-CREATION LAB

The Talent Co-Creation Lab will function at a prominent place in the University's main administrative building at the Chepauk Campus, Chennai. Since this Lab is attached to the existing facility of HRDC Computer Networking Centre, the Lab has sufficient space with interactive white board and Wi-Fi connectivity allowing for the use of online learning resources, web search, audio and video recording facility, multimedia and internet resources for teaching/training.

ARRANGEMENTS FOR THE MANAGEMENT OF THE LAB

As per the University policies on Research Labs and Projects, the Principal Investigator/Project Manager and the team members are responsible for all management activities. The University usually permits the Principal Investigators to continue and hold all facilities even after the project is over. However, after the project tenure, an Advisory Committee involving faculty, stakeholders and students will be constituted with the approval of the University Authorities to oversee the activities and management of the Centre.

ARRANGEMENTS FOR THE COORDINATION AND ADMINISTRATIVE WORK IN THE LAB – STAFF, RESPONSIBILITIES, FINANCING

There is a new Centre / facility at University of Madras - Entrepreneurship & Career Hub RUSA 2.0 (Rashtriya Uchchar Shiksha Abhiyan). It is sanctioned by the Ministry of Human Resource Development, Government of India. It is functioning with a Coordinator, Programme Coordinator, Campus Coordinator and administrative staff members. The objectives and activities of the Hub are strongly related to the INNOTAL objectives. The Hub organizes various kinds of skills training and courses with support from external stakeholders and experts. It will provide administrative assistance to the Talent Co-Creation Lab. Further, as part of the RUSA national scheme, the University of Madras has received grants for creating an Entrepreneurship Cell. To ensure sustainability, after the project tenure, the Lab will become part of the larger framework of the Entrepreneurship Cell, which is being set up with funds from RUSA.

Besides, initiatives will be taken to tap the monetary and non-monetary resources available from companies under CSR (Corporate Social Responsibility) grants (CSR contributions are mandatory for industries in India).

There is a maintenance fund for Labs operating under research projects and RUSA, which may be extended for the maintenance of the Talent Co-creation Lab, with the approval of University authorities.

CHANNELS AND MEANS OF COMMUNICATION WITH EXTERNAL STAKEHOLDERS

A good number of external stakeholders participated in the INNOTAL external stakeholders' workshops which was organised at University of Madras in October 2019. Many of them have agreed to join with us in promoting innovation and entrepreneurship skills among students. Besides, as suggested by external stakeholders, an online registry of interested stakeholders will be created. Social media (Twitter, Facebook, WhatsApp) will be used for better communication. There is already a



**RULES AND
REGULATIONS FOR
SELECTION AND
PARTICIPATION OF
STUDENTS IN THE
LIVE INNOVATION
PROJECTS**

WhatsApp group is with 140 members engaged with various aspects of entrepreneurship.

The Lab will be governed by a Committee consisting of faculty members specialized in various disciplines, students and administrative staff. This Committee will identify the areas in which students require training and assistance. Accordingly, we will choose the stakeholders / industries to share their expertise.

As part of a wider communication strategy, the Human Resource Development Centre (HRDC) has included entrepreneurship education and skills as one of the component in their regular academic professional development courses. They are also offering one-week courses on 'Entrepreneurship and Innovation' for the faculty members working in various disciplines.

A Committee will be constituted with representation of external stakeholders to determine the rules and guidelines for selection and participation of students in the live innovation projects. Based upon their academic score and expertise, students will get the opportunity to work in specific projects. In general, there are no restrictions, but some selection will be carried out based purely upon academic credits, area of expertise and interest. Depending on the chosen project, students from disadvantaged groups will get some support from the external stakeholders/industries.

The University has developed guidelines for the selection of students based on their academic score and expertise. Students that are enrolled in P.G. programmes in University departments and affiliated institutions (Colleges) will get internship opportunities.

**OPPORTUNITIES FOR
COLLABORATIVE
WORK**

Based on the nature of the project and the profile of the external stakeholders and industries, collaborative work will be planned by involving faculty, students and external stakeholders and by identifying areas of mutual interest. The Lab will seek expression of interest for collaboration from stakeholders. It will also promote personnel exchange between academia and industry.

The University Industry Community Interaction Centre (UICIC) at University of Madras has specific policies and guidelines for collaborative work on industry-specific R&D and entrepreneurship. The Confederation of Indian Industry (CII) and Corporate Social Responsibility (CSR) Gateway are non-government organizations that have developed an online portal where stakeholders and industries can register for collaboration. This gateway will be easy for the Lab to identify stakeholders interested in collaboration. A register/database of external stakeholders and experts will be maintained in the La. On that basis, the Lab will arrange collaboration between the external stakeholders and the students.

There will not be any restriction on access of the external stakeholders to



the Lab and on participation in project activities. For effective online communication, social media such as WhatsApp, Facebook and Twitter will be integrated with the communication system.

University of Madras already has a policy on inviting experts from industries and external organizations as members of the Curriculum Development Committee and the Board of Studies. Similarly, external stakeholders will be invited as members and experts in the design, delivery and assessment of Lab activities.

As part of their academic degree program, PG students are doing practical (lab) work and internships at various institutions/industry. After assessing performance on these activities, they receive extra credits. Lab activities can thus be incorporated into the curriculum and linked with internships. The Lab can also offer P.G. Diploma courses and elective courses if approved by the Academic Council and the Senate for students to get course credit.

P.G. students' coursework includes project work for a period of six months to one year. Students who work with the Lab may submit their Lab activities or Lab analysis report as project work. Student achievements in Lab activities will be recognized based on their quality and the application of the work. The University has a scheme 'Earn While Learning' which supports students financially and this facility will be extended to the students working with Lab, with the approval of University Authorities.

The involvement in the Lab of faculty members, particularly those from disciplines like Management and Commerce, and the outcomes of projects may be used to identify and develop case studies and online innovative projects suitable for use in classroom teaching. Information sources based on faculty research on entrepreneurial skills will also be useful in teaching and research.

The faculty members involved in the Lab activity will develop entrepreneurship and innovation courses/modules based on their expertise and the links they have developed with the external stakeholders. The technical know-how and experiences gained by the faculty members through collaboration with external stakeholders will help them to convert research ideas into potential entrepreneurial ventures. The Lab will then organize entrepreneurship and innovation training sessions for students in various disciplines, fully utilizing the outcomes of Lab activities and the expertise of the involved external stakeholders.

PRINCIPLES AND APPROACHES FOR ASSESSMENT AND EVALUATION OF STUDENT AND FACULTY INVOLVEMENT IN LAB ACTIVITIES

University of Madras has an Internal Quality Assurance Cell (IQAC), which has developed guidelines and mechanisms to assess faculty performance based on student feedback. Based on that mechanism, the Lab will also develop and introduce competency-based frameworks for assessing students' knowledge and skills, including soft and professional/communication skills. Students will be asked to prepare a project report based on their training at the Lab and the report will be evaluated by external experts and the faculty members involved in the Lab.

In order to carry out assessment of faculty members' involvement, assessment will be based on feedback collected from the students. The results will be taken into consideration as criteria for promotion.

The system of peer-to-peer assessment allowing students to evaluate and give feedback to other students will be introduced, with concrete modalities determined by the academics.

POLICY AND PROCEDURES ON INTELLECTUAL AND INDUSTRIAL PROPERTY

University of Madras is strictly following the policy and guidelines of the State Government and the Government of India with regard to Intellectual and Industrial Property rights. Based on the applicable policy and procedures, the University Industry Community Interaction Centre (UICIC) was established at University of Madras. It has specific policies and guidelines, it maintains a database on the needs of industries in the country and it has launched an Industrial Associateship programme. The Centre coordinates R&D projects between University departments and industries in the area of product/process development and technology transfer, assists in signing Memoranda of Understanding and in developing IPR/patents by the University faculty, offers testing and certification facilities. The Centre has also taken steps to commercialise research outputs.

These existing policies and procedures of UICIC will be followed and implemented in the Lab, and the UICIC will otherwise assist the Lab on IPR issues.

POLICY ON FINANCING OF THE LAB ACTIVITIES

After the project tenure, in consultation with the University authorities, self-financed programmes and training courses will be organised. This will ensure sustainability of the Lab. The University is generally dependent on public funding for all of its activities. As far as University policy is concerned, each Department lab gets some seed money based on their specific requirement and budget provision. In addition, each Department/Faculty is encouraged to apply for consultancy projects, applied research sponsored by industry and other funds from industry.

Industry-specific research and joint training programmes focused on the development of various skills will be organised with external stakeholders (institutions or industries) on a self-financing principle. Offerings of joint programmes delivered by the University and external stakeholders will be met with great interest among students and the public, because



POLICY AND PROCEDURES ON INDUSTRY / BUSINESS CONTRIBUTION OR CO-FINANCING OF THE LAB PROJECTS OR TRAININGS

participants can obtain a certificate from University of Madras.

University of Madras considers industry-based R&D as a top priority. It has established a University Industry Community Interaction Centre (UICIC) and a Technology Business Incubator (TBI). These structures have well defined policies and procedures for involving industries and business organizations in R&D programmes. The Talent Co-Creation Lab will rely on those existing policies. Usually, a Memorandum of Understanding will be prepared on the basis of consultation with the Legal Department and it will be presented to the Statute Body /Syndicate for approval. Once it is approved, both parties prepare training modules, determine the fee structure and design the research programme based on the signed Memorandum of Understanding.

For fund mobilization and co-financing, the Talent Co-creation Lab will be signing Memoranda of Understanding with external stakeholders (industries, business organizations, etc.) for joint programmes and trainings courses.

POLICY AND PROCEDURES ON ACCESS TO RESEARCH / INNOVATION RESULTS AND USE OF PRODUCTS DEVELOPED WITHIN THE LAB

For all joint and collaborative projects, the Project Manager or Principal Investigators will be the responsible persons to provide access to, and enable the use of, the results achieved in the projects. As far as Lab activities are concerned, the Project Manager will be the responsible person to manage the utilization of the results obtained in the Lab. Memoranda of Understanding signed between the University and the external stakeholder may specify that the results/products achieved should be used strictly for scientific and academic purposes only and not for any commercial purpose. However, patents and research publications developed through joint activities and programmes can benefit both parties.

Students and faculty members from the University and any affiliated institutions will be allowed to use the Lab results (research outputs, analyses, reports, etc.) for their teaching and research.

Under the University guidelines, each Lab has to collect a minimum fee for analysis of samples, data analysis and project works. The fee is collected from both government institutions and private organizations. The fee structure varies based on the type of the institutions. Similarly, the Talent Co-Creation Lab will also collect fees for any research or analysis work that is undertaken. This fee will be used to support the maintenance and sustainability of the Lab.



RULES FOR ENSURING THE SAFETY OF STUDENTS AND EXTERNAL STAKEHOLDERS DURING ACTIVITIES TAKING PLACE IN THE LAB

There will be no restrictions on the number of persons present during sessions. However, considering the space, it is not feasible to accommodate more than 25 participants per session. In addition, the Government of India has issued guidelines to Universities/Colleges to limit the number of students in classrooms and lab in order to maintain social distance in wake of COVID-19 pandemic.

The Lab will provide a lab coat for each student to wear when they enter into the Lab. First aid kits are available in the Lab. A safety manual was prepared by the University and students and stakeholders working in the Lab will receive a copy of it.

RULES FOR ENSURING THE SAFETY OF STUDENTS AND EXTERNAL STAKEHOLDERS WHEN THE LAB ACTIVITIES TAKE PLACE OUTSIDE THE LAB

Activities outside the Lab will be permitted and one faculty member or Lab staff will accompany the students during off-campus activities. University of Madras has issued rules that need to be followed by all Departments during off-campus, industry or field activities. These rules provide clear guidelines and instructions regarding the required safety arrangements and arrangements related to basic sanitization and health. Specific COVID-19 rules are available as of 2020 (washing hands, cleaning surroundings, social distancing, wearing masks, etc.).

INTERNAL DEVELOPMENT PLAN OF THE TALENT CO-CREATION LAB

The established Talent Co-Creation Lab, along with the Entrepreneurship & Career Hub, will be involved in the design and delivery of new collaboration activities and training programmes and the promotion of internships, with the ultimate purpose to develop students' transferrable skills. Specifically, the following plans are made for its development in the short and medium term:

- The Lab will advocate for making internships and soft skills training compulsory in all programs, as an important step in the direction of improving graduates' employability
- The Lab will formulate, regularly update and implement a short-term to medium-term strategy for entrepreneurship education, a strategy for innovation and a strategy for knowledge transfer to the external environment, setting clear goals and allocating resources
- The Lab will facilitate links with external stakeholders
- The Lab will contribute to University efforts for modernization of curricula in view of new challenges, national priorities and identified business needs
- The Lab will contribute to University initiatives to develop courses in emerging areas with high research, scientific and industry potential, in particular by utilizing the Choice Based Credit System
- The Lab will contribute to University efforts to engage more actively in knowledge transfer to the economy and society.
- The Lab will work to develop schemes for the development of

new joint research

The Lab will promote personnel exchange between academia and industry

The Lab will assist in the design and delivery of foundation courses in Entrepreneurship, which would be especially beneficial in Science departments, as well as Departments relevant to Arts, Entertainment and the Creative Industries.

The Lab will raise awareness of the benefits of opening up research laboratories to industry, entrepreneurs and investors, especially through collaborative R&D projects. In this way, it would facilitate the development of long-lasting partnerships between university and industry.

QUALITY ASSURANCE
PLANS FOR THE
TALENT CO-CREATION
LAB

The following preliminary Quality Assurance plans have been made:



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Type of assessment	Who will be in charge?	How will assessment activities be organized?	Who will collect the results from the monitoring activities?	Who will analyse the result from the monitoring activities?	What indicators will be used? What elements of the work of the Lab will be monitored?	How will results be reflected in planning?
Monitoring: ongoing, focused on implementation	The INNOTAL Project Manager and team members	Feedback collection, monitoring by the project team As per the rules and regulations concerning all University research Labs and common instrumentation facilities, a log book will be maintained in the Lab to monitor the use (in terms of users and activities). Feedbacks will be collected from everyone who visits the Lab	Faculty members and mentors	Experts, especially external stakeholders, who are part of the team will analyse the results, along with concerned faculty members (360-degree output analysis)	Number of stakeholders involved Number of students involved in various activities Number of projects undertaken in collaboration with external stakeholders Number of faculty involved in various activities Number of areas covered by the Lab activities	Based on the analysis and assessment, outcome based mapping will be done. It will help to plan innovative courses and activities to increase students' employability skills
Evaluation: Periodic (e.g. once a semester or once a year)	Once a semester	Evaluation by the project team Like other centres at the University, a review will be conducted periodically to assess the progress of the Lab and its activities, and to prepare future action plans	Faculty members and mentors	Project team and external stakeholders	Student skills and competencies developed Perceived capacity for effective collaboration between the University and external stakeholders Perceived efficiency of team work	The results of the evaluation will be incorporated in the planning the future activities of the Lab