

VISION FOR IDEA LAB

To foster an ecosystem of Digital Factory for testing, validation and transformation of ideas into products to support mission Atmanirbhar Bharat

BENEFITS TO STUDENTS:

The students will be encouraged to take up creative work, inculcate the psychomotor & affective domain skills for problem solving and prototype development. The student will be encouraged to get involved in development of products for creation of intellectual property rights since the lab will be open for all. It will invite many collaborative opportunities among the nearby industries, budding entrepreneurs, startups, alumni, faculty members and students. The facilities will provide basis for development of cost effective prototypes. Students and innovators will get an opportunity to develop patentable products based on innovative ideas. faculty members will be able to upgrade themselves on new technologies by joining FDPs, skilling programs , boot camps, conference, symposium and workshops.

Tentatively in a year minimum two FDPs, four Skilling Programs, two Bootcamps, four Ideation Camps, four Awareness Camps for industries, four Professional Skilling Programs for ITI skilling students, two School Teacher Awareness Program for teachers of nearby schools, Five Open Day Events for School students, participation in annual technical exhibition will be arranged. Six newsletters will be published in a year. A conference will be organised every year. weekend Programs and workshops during summer breaks will be organised for students of nearby institutes of Greater Noida region. The institute has strong industry-institute partnership and regular engagement hence the facility will benefit industry as well. Since, the small industries face lot of challenges in prototype development, this lab will certainly provide them a great support in reducing the cost and time taken for prototype development.

INTEGRATION OF IDEA LAB WITH EXISTING FACILITIES

The institute has well developed facilities in compliance with Industry 4.0 requirements. Facilities such as reverse engineering, rapid prototyping, 3D printing, pneumatic system design lab, CNC machines, robotic arm for MIG welding and higher end software labs etc. are available to be integrated with IDEA Lab. These facilities are created with the same vision of allowing students to transform their ideas into real products. The faculty mentors are well qualified and trained to provide insight about the usage of these facilities. These cutting edge labs are open beyond institute hours, so the cultural bondage will strengthen the work culture for usage of facilities by innovators and startup companies.

ALIGNMENT WITH NATIONAL INITIATIVE

The IDEA Lab in the Institute will support all key features of National Technology Vision 2035 by providing opportunity for development, empowerment, inclusiveness, and sustainability. The lab will provide opportunity to culminate some of the prerogatives defined under National Vision, such as; (i) clean air and potable water; (ii) 24x7 energy; (iii) decent habitat; (iv) quality education, livelihood and creative opportunities; (v) safe and speedy mobility; (vi) public safety and national security; and (vii) eco-friendly conservation of natural resources.

The lab will support in technological transformation in the field of education, water, energy, environment, transportation, infrastructure, manufacturing, materials, and ICT by nurturing the culture of innovation. For budding innovators and startups the Lab will provide an ability to absorb failures and learn useful lessons from failed initiatives. The Lab will help in establishment of linkage between innovators and entrepreneurs.

Thirty existing SMEs in the nearby region have already signed MoUs with the Institute for technical support. This lab will provide a base for students and innovators to create prototypes and commercialise the products with the help of these companies. Since NOIDA is a hub of industries, the Lab will promote research sharing for niche products.

PLAN FOR SUSTENANCE OF IDEA LAB BEYOND TWO YEARS:

After two years the faculty members will be able to attract consultancy projects of substantial worth from nearby industries. Also, the Lab will be able to generate funds from commercial usage of the facilities by nearby industries at a very nominal rate. Alongwith that the faculty members and students will be encouraged to create IPRs by using these facilities. Some of these IPRs will certainly find their commercial usage. The innovative products developed by the innovators and startups will be an input for new startup companies in the institute Technology Business Incubator (TBI-NIET). This will help to develop a closed loop to sustain the set up. The final year students will use these labs for development of new projects. These projects can find commercial value as prototype of products in niche areas.

The events such as FDPs, Skilling Programs, Bootcamps, Ideation Camps, Awareness Camps for industries, Professional Skilling Programs, School Teacher Awareness Program, Open Day Events for School students, and technical exhibition will be organised on regular basis to optimally utilize the resources. Some fee may be charged from participants for sustenance of the lab, if permitted by the Government.

Since, the lab will be open 24x7, the students from nearby region will have an opportunity to use the lab facility beyond institute hours. The products developed by them may be of commercial value for the industry and some amount can be funded by the industry to support these projects under CSR activities.