

## PROFORMA FOR SUBMISSION OF PROGRESS REPORT

<b>Name of HI/NewGen IEDC</b>	:	<b>Chitkara University, Punjab Chandigarh-Patiala National Highway (NH- 64), Village, Jansla, Rajpura, Punjab 140401</b>
<b>Name of the Chief Coordinator</b>	:	<b>Dr. Archana Mantri</b>
<b>Period under Review</b>	:	<b>February 2019 – January 2020</b>

### 1. Initiatives/Activities Undertaken as per the Action Plan Submitted:

#### [A] To inculcate the spirit of innovation and entrepreneurship amongst S&T students

Sr. No.	Activities	Outcome/Achievements
1	STEAM School	<p>STEAM school is designed to provide basic skills in Science, Technology, Engineering, Arts and Maths to the first year engineering students in a fun filled activities based structure. The program ran from January 2019 to April 2019 where 63 faculty members ran 19 courses for 305 students after the college working hours (4:30-6:30PM). Some of the courses conducted were – Solar Cell Device Simulation, Game Design, Making AR Application, Circuit Sketching etc.</p> 
2	Engineering Exploration Course	<p>Engineering Exploration (Credit) Course was conducted from August to December 2019 for all engineering streams at the university. The course was conducted as part of Integrated Projects for the students where students could opt to work in one of the following verticals – Engineering Project in Community Service (EPICS), Engineering Projects in Solving Campus Problems (EPIP) and Publishing Research. During the end of the course, top projects were given an opportunity to submit their ideas to NewGen IEDC for funding support to build advanced level prototypes.</p>
3	Entrepreneurship Course	<p>About 120 First and Second year engineering students took this course on Entrepreneurship that was held during January – June 2019. The course was focused on identification of a problem followed by team formation, understanding target market, preparing business canvas, learning marketing strategies etc. Students who are really keen to take entrepreneurship route in their career opted for this course.</p>
4	Start-up Boot Camp	<p>We organized a two-week start-up boot camp for the first year engineering students in the month of August 2019. The objective of this boot-camp was to sensitize first year students about the start-up and entrepreneurship ecosystem of the university. Close to 100 students attend this boot camp.</p>

		
5	Mentor-Mentee Connect Series	<p>We organized volume III of mentor-mentee connect series at the university to connect our students having entrepreneurship bent of mind with the leading entrepreneurs. This edition of connect series was held in September 2019 with Mr. Avelo Roy – MD, Kolkata Ventures invited as an expert. Mr. Avelo is a serial entrepreneur who has built 8 businesses in the US and he interacted with our students and shared his expertise with them. About 250 students attended his talk.</p> 

**[B] To identify, develop & commercialize students' innovative ideas**

Sr. No.	Activities	Outcome/Achievements
1	NOVATE 2019	<p>Chitkara University Organized its 3rd Annual Problem Solving Challenge NOVATE 2019 on 2nd April 2019. At NOVATE 2019 students were competing to solve the 35 identified problems of the society. Out of total 270 teams top 60 teams were shortlisted for the grand finale of NOVATE 2019. The students and faculty members worked relentlessly during January-March 2019 on finding innovative solutions to given problems and presented Proof of Concepts and Prototypes to eminent jury members on April 2, 2019. Top three teams were given cash prizes and opportunity to receive funding from NewGen IEDC for building advanced level prototypes.</p>

		
2	India Fund Fest 2020	<p>Chitkara University was the co-organizer in the India Fund Fest 2020 that was held in Chitkara University and Chandigarh on Feb 6 and 7 respectively. About 30 start-ups including 6 from Chitkara University presented their businesses pitches and raised capital. One such start-up from Chitkara University was Anukai Solutions that raised INR 80 Lakhs from the investor. This project has been supported by NewGen IEDC.</p> 
3	Startup Day	<p>In the month of April 2019 we organized two Start-up days with a theme Pitch Perfect. 42 student start-ups pitched their business idea to the jury and 12 best ideas were shortlisted. These 12 ideas were assigned mentors to guide them and to refine their business pitches. On the second start-up day these 12 ideas were given an opportunity to present their final pitch in front of external jury. Top three ideas were offered prototyping grant from NewGen IEDC and office space in Chitkara University incubator. These start-up days were held on April 18 and 25.</p>
4	E-Cell Members visit to CIIF	<p>Chitkara University has E-Cell that comprised on students who are keen on taking up entrepreneurship as career. On February 2, 2019 about 50 E-Cell members visited Chitkara Innovation Incubation Foundation (CIIF) which is situated in IT Park Chandigarh. Students were exposed to various support services that they can access in CIIF like access to seed money, one-to-one mentoring, capacity building, developing scalable business plans etc.</p>

### [C] To enhance Industry-Academia interaction

Sr. No.	Activities	Outcome/Achievements
1	Flagship Conferences Organized	Chitkara University in association with National Chung Cheng University, Taiwan jointly organized the IEEE sponsored International Conference on Computing, Analytics and Networks - ICAN 2020, with the aims to broadly focus on mobile cloud computing, big data analytics and building secure networks. Over 250

delegates attended the conference that featured paper presentations, keynote talks, tutorials and a panel discussion.



26th National Conference on Liquid Crystals was organized by Chitkara University and it aimed to provide an open forum for discussion of scientific and recent advancements in the field of Liquid Crystals. The conference also served as platform for researchers to discuss and share emerging interdisciplinary areas of Soft Matter, Nanotechnology and Biological Systems. About 200 delegates attended the conference that was held during October 21-23, 2019



2. Collaborator in Punjab Innovation and Technology Summit

Chitkara University NewGen IEDC collaborated with Punjab Innovation and Technology Summit organized by Punjab Government in Chandigarh on November 5, 2019. We put-up an exhibit during the summit and showcased the innovations being carried out at Chitkara University NewGen IEDC.



3.	Expert Talks	<p>1. An Expert Talk on 'Data Science' was organized in October, 2019 for the students of Computer Science &amp; Engineering and was delivered by Karan Arora, Founder &amp; CEO, Itronix Solutions about 150 students attended the talk.</p> <p>2. IEEE CIET Student Branch organized an Expert Talk on 'Innovation Technology with Entrepreneurship' in January 2020 and it was delivered by Mr. SakshamChaudhary - Co-Founder, LearnCodeOnline. The main aim of the talk was to bridge the gap between technology and entrepreneurship while expanding the boundaries of technical interests for students.</p>  <p>3. An expert talk on 'Augmented and Virtual Reality in Science Education' was organized during the previous semester. MrPkParthasarathy, Dean, Department of Gaming and Design, Chitkara University delivered the talk that was attended by about 90 students and faculty members.</p> 
4.	Electronic Sector Skill Council of India	<p>Department of Electronics &amp; Communication Engineering has signed an MoU with Electronic Sector Skill Council of India in the year 2019. Under this MoU Electronic Sector Skill Council of India will provide technical and monetary support for conducting various students' training programs and workshops.</p>
5.	HONDA Automotive Research Workshop	<p>Chitkara College of Applied Engineering (CCAIE) organized a two-day workshop on 'Assembling and disassembling of two wheeler and four wheeler engines' that was held in December 2019. The workshop was delivered by Mr. Gaurav Kali and Mr. Rajesh Kumar faculty CCAIE and was attended by about 25 students of different engineering branches including CSE, Electrical, Electronics and Civil Engineering.</p> 

6.	HUAWEI Training for faculty and students	<p>HUAWEI Authorized Information and Network Academy (HAINA) conducted the ICT competition in Chitkara University that was launched in October 2019. 24 students signed up for this competition; students took training before appearing for an exam. 19 students cleared the exams and top three were invited to compete in the national level competition.</p> 
7.	Two-day Workshop by NXP Semiconductors	<p>Chitkara University NewGen IEDC supported the two-day workshop on Analog Circuits Design conducted by ECE department for third year students. The workshop was delivered by industry expert from NXP Mr. Vijay M. He trained students on Analog circuits design with a special focus on layout design in Cadence tool. This hands-on workshop was attended by about 35 students including 5 M.E./Phd Scholars</p>

**2. Deviation (shortfall) from the proposed action plan (with reasons), if any:**

**None**

**3. Other important highlights (new initiatives), if any:**

In order to find innovative solutions to COVID-19 challenges, Chitkara University has announced a National Level Event – NOVATE+ 2020. This event has been anchored by Chitkara University NewGen IEDC. We have received 300 entries in the competition. Website of NOVATE+ 2020 - <https://www.chitkara.edu.in/novate>

Other new initiatives to be taken by Chitkara University NewGen IEDC have been presented in Annexure I (Action Plan) that has already been submitted.

**4. Student Projects (Please provide the following details for each student project)**

15 projects were supported by Chitkara University NewGen IEDC in the First year. The list of projects is given below. Detailed information about each project in the prescribed format along with photographs are given in **Annexure A toward the end of this document.**

Sr. No	Team/Project Description
1	Intellights – 3D smart traffic light
2	Black Carbon Battery – Cost effective battery from bio and metallic waste
3	Hyperspace – AI/VR based solution for solving complex mathematical problems.
4	Bhugoal – Weather predicting solution

5	Brill-Tab Edukit – Braille based educational kit for visually impaired
6	Fogminator – solution for improved driving in Foggy condition
7	Video Laryngoscope -
8	SwachhNeer – Water purification system using earthen pot
9	Learn-O- Little – AR/VR based learning platform for kids
10	Pied- Piper – AI based autonomous rat trapping device
11	Grain Paddy Drier
12	Driving Test Simulator
13	Hybrix – low water consumption desert cooler
14	IoT and AI based tea vending machine
15	Intelligent Urea Spreading Machine

- Submit three/four high resolution (at least 300 dpi) pictures in jpeg format showing the prototype/product along with the students and theirmentor.

**Please see Annexure A**

**5. Provide a minimum two page case-let each on the two best student projects (either prototype developed or commercialized) from the above list. The case-let shouldinclude:**

**Case Studies of two projects have been added as Annexure B toward the end of this report.**

- Student team details (with contactinformation)
- Brief description about the studentstart-up
- Startups entrepreneurial journey from ideation to prototype or commercialization along-with 2-3 high resolutionphotographs
- Contribution of NewGen IEDC in thesame
- Futureplan

**6. Minutes of the Advisory Board Meetings (held twice ayear):**

**Advisory Board meeting was held on August 17, 2019. MoMhas been attached separately as a PDF document (MoM-Advisory-Committee-Meeting.pdf)**

**7. ProgressSummary**

<b>1</b>	<b>Total number of Student Projects supported</b>	15
<b>2</b>	<b>Total fund provided towards supporting Student Projects</b>	INR 25 Lacs
<b>3</b>	<b>No. of Patents filed by students (Refer Enclosure)</b>	8
<b>4</b>	<b>No. of Patents Granted</b>	0

5	<b>No. of companies/Starts up Set up by Students (Refer Enclosure)</b>	3
6	<b>Social Impact (Refer Enclosure)</b>	<p>3 projects carried out by our students have good societal impact -</p> <ol style="list-style-type: none"> <li>1. Black Carbon Battery – Battery made up of bio and metallic waste. It can be helpful in controlling environmental pollution.</li> <li>2. Briltab Edukit-1 - A learning kit for visually impaired kids and students.</li> <li>3. Swach Neer - Water purification system based on earthen pot. Ideal for those who cannot afford costly water purifiers.</li> </ol>

## ANNEXURE A

### Student Projects (Please provide the following details for each student project)

1. **Team / Project Description:** Intellights – 3D smart traffic light

**Project status at beginning of the Year:** Proof of concept was available and it was competing in different competitions

**Interventions made:**

- a. Provided support in making full-fledged product.
- b. Provided platforms where it could get more visibility and mentoring from industry experts.
- c. Provided support in field deployment of the product.
- d. Given a grant of INR250,000 from NewGen IEDC.

**Current status:**

- a. Successfully registered a company
- b. Product has been successfully deployed at one street light in Mohali city.
- c. Raised a capital of INR 80 Lacs from the investors in India Fund Fest.

**Photographs:**



2. **Team / Project Description:** Black Carbon Battery – Cost effective battery from bio and metallic waste

**Project status at beginning of the Year:** It was just an idea on paper when submitted for grant in NewGen IEDC.

**Interventions made:**

- a. Grant of INR 250,000 was given for building the prototype.
- b. Central Instrumentation Facility at NewGen IEDC was offered for building the prototype – 3D printing, CNC etc.

- c. Two progress reviews have been done, mentor has been assigned for some mechanical jobs

**Current status:**

- a. The project is currently in process.
- b. Lab testing has been carried out.

**Photographs:**



- 3. **Team / Project Description:** Hyperspace : AI/VR based solution for solving complex mathematical problems.

**Project status at beginning of the Year:** Received an idea, PoC was not available.

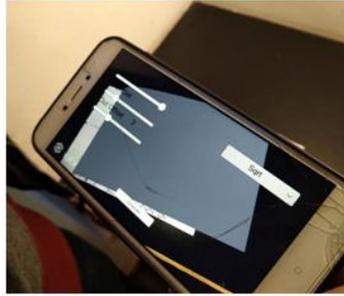
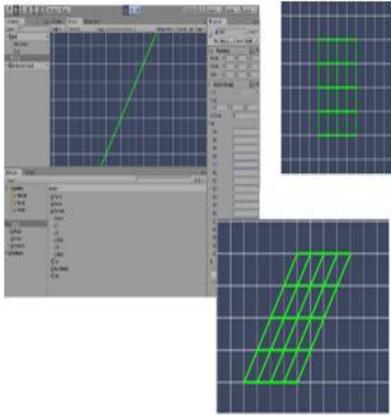
**Interventions made:**

- a. Funding support for procuring the components for the project
- b. Once the basic level prototype was made, mentoring support has been provided to widen the scope of the application

**Current status:**

- a. This application is being used in the Graphic Programming Course in CSE in the university.

**Photographs:**



4. **Team / Project Description:** Bhugol – Weather predicting solution  
**Project status at beginning of the Year:** It was an idea without PoC.

**Interventions made:**

- a. Funding support from NewGen IEDC
- b. 3D designing and 3D printing support
- c. Direction of participating in different competitions
- d. Helped in filing a patent.

**Current status:**

- a. Three different versions of advanced level prototypes are ready.
- b. It has won two national/international level competitions – IIGP 2.0, IICDC 2018
- c. Registered a company.

**Photographs:**



5. **Team / Project Description:** Brill-Tab Edukit – Braille based educational kit for visually impaired  
**Project status at beginning of the Year:** Basic level prototype was available.

**Interventions made:**

- a. Funding support from NewGen IEDC

- b. 3D designing and 3D printing support
- c. Direction of participating in different competitions.
- d. Providing support in PCB designing and manufacturing

**Current status:**

- a. Different models of the products have been made.
- b. Tested with the potential users.
- c. Company has been registered
- d. Currently working on improving the aesthetics and robustness.

**Photographs:**



**6. Team / Project Description:** Fogminator – Solution for improved driving in foggy condition

**Project status at beginning of the Year:** It was an idea without PoC.

**Interventions made:**

- a. Funding support from NewGen IEDC.
- b. Mentoring support from Mechanical Engineering department after two progress review.
- c. Helped in filing a patent.

**Current status:**

- a. Prototype is being made
- b. Patent has been filed

**Photographs:**



**7. Team / Project Description: Video Laryngoscope**

**Project status at beginning of the Year:** It was an idea without PoC.

**Interventions made:**

- a. Funding support from NewGen IEDC.
- b. 3D designing and 3D printing support

**Current status:**

- a. Prototype is ready.

**Photographs:**





8. **Team / Project Description:** SwachhNeer – Water purification system using earthen pot  
**Project status at beginning of the Year:** Patent was filed for the idea. Prototype was not available  
**Interventions made:**

- a. Funding support in making the prototype.
- b. Provided assistance in getting certification

**Current status:**

- a. 50 units were made and distributed for pilot run.

**Photographs:**



9. **Team / Project Description:** Learn-O- Little – AR/VR based learning platform for kids

**Project status at beginning of the Year:**

It was an idea without PoC.

**Interventions made:**

- a. Funding support from NewGen IEDC.
- b. 3D design and 3D printing support
- c. Mentoring from AR/VR lab

**Current status:**

- a. Working on the commercialization
- b. Won First Prize in Hackathon at IIT Bhubaneswar

**Photographs:**



10. **Team / Project Description:** Pied- Piper – AI based autonomous rat trapping device

**Project status at beginning of the Year:**

It was an idea without PoC.

**Interventions made:**

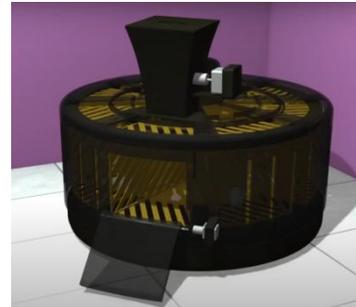
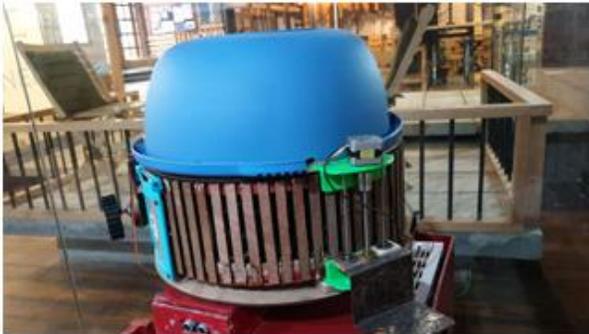
- a. Funding and mentoring support from NewGen IEDC

- b. Support in filing patent
- c. Lab/Machine support in making prototype using sheet metal

**Current status:**

- a. Two different versions of prototypes ready
- b. Patent has been filed
- c. Participated in different national level competitions

**Photographs:**



**11. Team / Project Description: Grain Paddy Drier**

**Project status at beginning of the Year:**

It was an idea without PoC.

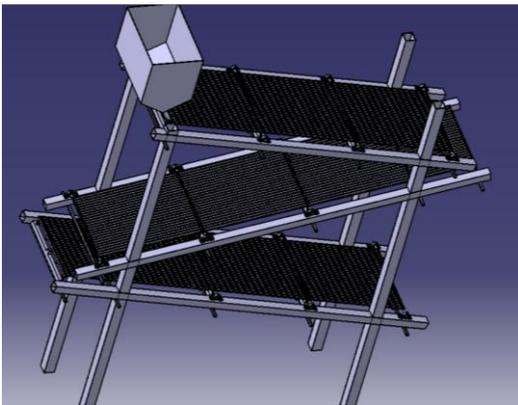
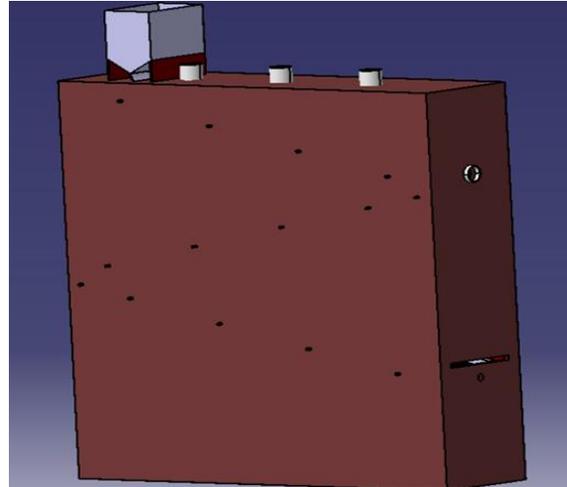
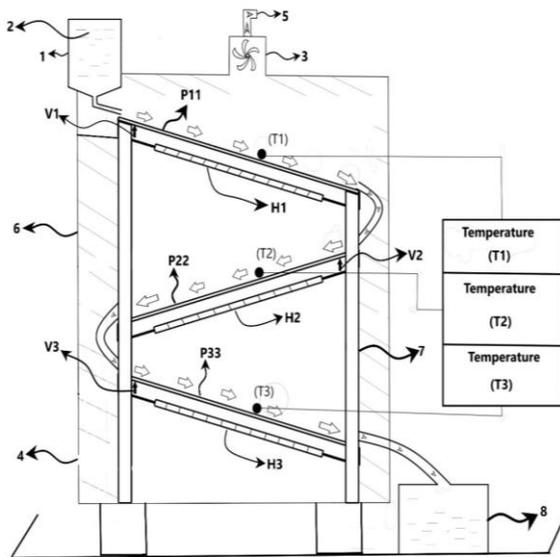
**Interventions made:**

- a. Funding support in making a prototype
- b. Both in-house and third party vendor support in machine/mechanical job using sheet metal.
- c. Support in filing a patent

**Current status:**

- a. Fully-functional field prototype is being made.
- b. Patent has been filed

**Photographs:**



## 12. Team / Project Description: Driving Test Simulator

### Project status at beginning of the Year:

It was an idea without PoC.

### Interventions made:

- a. Funding support from NewGen IEDC
- b. Mentoring support from automobiles lab in making a body and cockpit of the simulator
- c. 3D printing and 3D design support
- d. Support in filing a patent

### Current status:

- a. Prototype is being made
- b. Patent has been filed

### Photographs:



13. **Team / Project Description:** Hybrix – low water consumption desert cooler

**Project status at beginning of the Year:**

Basic prototype was ready, needed support for making advanced level prototype for a competition.

**Interventions made:**

- a. Funding support from NewGen IEDC
- b. Mentoring and lab support

**Current status:**

- a. Finalist in AAKRUTI 2019 a national level competition by Dassault Systemes.
- b. Advanced level prototype is ready and submitted to NewGen IEDC

**Photographs:**



14. **Team / Project Description:** IoT and AI based tea vending machine

**Project status at beginning of the Year:**

It was an idea without PoC

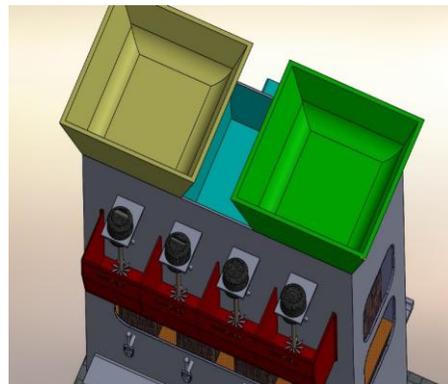
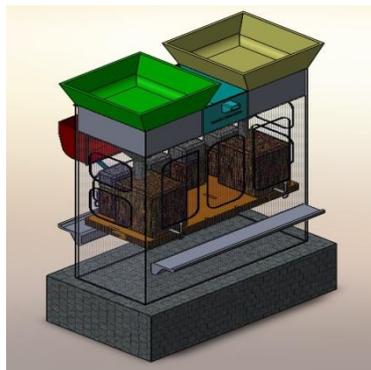
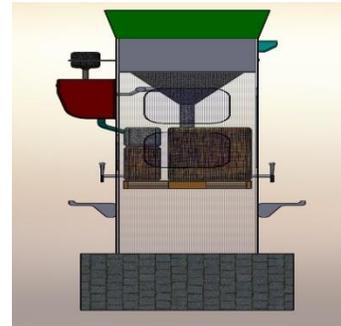
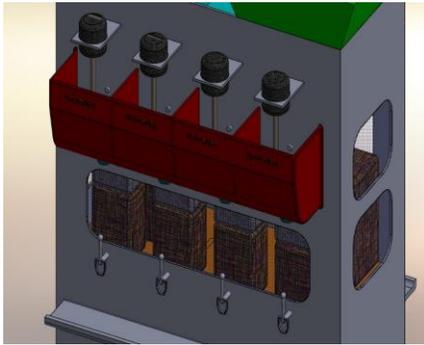
**Interventions made:**

- a. Funding support from NewGen IEDC
- b. Supporting is designing and printing 3D parts
- c. Support in filing the patent
- d. Assigned mentor after progress review

**Current status:**

- a. Filed a patent
- b. Made some modification in the design after the review.
- c. The prototype is being made.

**Photographs:**



15. **Team / Project Description:** Intelligent Urea Spreading Machine

**Project status at beginning of the Year:**

Basic level prototype was ready

**Interventions made:**

- a. Funding support from NewGen IEDC
- b. Mentoring and Lab support

**Current status:**

- a. One prototype is already made and submitted to NewGen IEDC.
- b. Working on larger volume prototype

**Photographs:**



## ANNEXURE B

Provide a minimum two page case-let each on the two best student projects (either prototype developed or commercialized) from the above list.

### Project Title -Intellights – 3D smart traffic light

#### 1. Student team details (with contact information)

Member	Name	Email ID	Contact Number
Member 1	GauravGoyal	gauravgoyal0.rg@gmail.com	9910910439
Member 2	Karamdeep Singh	karamdeep.singh11@gmail.com	8558973131
Member 3	Rahul Goyal	rahulgoyal0.rg@gmail.com	9988866864
Member 4	Hardeep Singh	hardeoptc@gmail.com	9463224324
Member 5	Karanveer Singh	karanveers068@gmail.com	7696143071
Member 6	RishabhMalra	malrarishabh@gmail.com	9417432736
Member 7	Sumit Kumar Patel	sumitskp16@gmail.com	7837363900

#### 2. Brief description about the student start-up

InteLights is an “Edge based, deep learning powered”, Intelligent Traffic Management System that uses existing CCTV cameras, cutting-edge communication and processing technologies, optically isolated MOSFET switching and appropriate Machine Learning algorithms (in house trained Convolutional Neural Networks for traffic density estimation) to control and prioritize the traffic signals based on the current intensity of traffic at each lane of an intersection. With InteLights, a dynamic signal controlling and coordination mechanism is provided that reduces AWT (Average Wait Time) of vehicles at intersections. This, in turn, reduces the amount of harmful gases released from vehicles and also lower the consumption of fuel being burned by these vehicles standing idle at an intersection. A single node of InteLights is made of a processing unit with networking capabilities which could be interfaced with any kind of CCTV cameras & existing traffic signal controller systems. By laying out a network of InteLights nodes, traffic congestion can be reduced in an area drastically. A node analyzes the information gathered by the CCTV cameras in the form of images and estimates density of traffic & vehicle-type on-Edge, thus, de-centralizing the computation and reducing the constraint on bandwidth. The network is also capable of drawing patterns from the traffic information gathered at various intersections in an entire area/city and can be used to create “GREEN CORRIDORS” to ensure smooth vehicular movement. The application of “Deep-Q Learning” along with “Generative Adversarial Networks” makes a different InteLights nodes installed different sites coordinate with each other in real time and provide a smooth flow of traffic.

#### 3. Startups entrepreneurial journey from ideation to prototype or commercialization along-with 2-3 high resolution photographs

Anukai comes from the word - 'Anunnaki', which was a group of deities who appear in the mythological traditions of the ancient Sumerians. Just like these deities brought a drastic change to our world, we at Anukai thrive to bring a change by solving real-world problems via Artificial Intelligence powered solutions that are exceedingly “Accurate”, “Appropriate” and “Affordable”. We work in the domain of Urban Mobility for Smart Cities, and provide “Integrated Traffic Management & Road Infrastructure planning” solutions that not only help to decongest traffic but also provide high quality & real-time traffic movement insights to potential businesses. At Anukai, we are unbiased towards the people we work with. We have students, employees with different backgrounds, experiences, and perspectives. From their exposure to a variety of different perspectives and contributions in developing the organization, a higher level of creativity is achieved. The idea of InteLights came from a day to day experience that we all face while waiting at traffic signals. InteLights was started back in June 2017, and it got its first validation in March 2018, when it won Smart India Hackathon 2018. Our reason for tackling this problem was such a common problem like this had solutions with loads of shortcomings with no new development happening in this area. Almost everyone one of us, some or the other day, has experienced being stuck in a traffic jam for long hours, cursing the road infrastructure, and getting time. To reduce these negative effects, there has been significant research on Intelligent Traffic Management Systems (ITS) to avoid congestion, ensure priority for emergency vehicles and cut the Average Waiting Time (AWT) of vehicles at

intersections using sensors. These types of sensors provide fixed-point or short-section traffic information that is extracted from vehicles passing the detection zone. But one of the main limitations of point detection technologies is that the traffic estimates are based on measurements taken at a specific location that might not provide an accurate representation of the traffic conditions over larger road segments. Since Anukai's inception on June 1st, 2018, Anukai is growing and exploring its potential to bring an impact in the world. Two MoU's have been signed by Anukai - First with Govt. of Punjab, to deploy InteLights in the city of Mohali (Punjab) and it's been 6 months since we are working actively with them. Second MoU is with NASSCOM foundation to work with them in RnD and solve congestion in the city of Bengaluru. NASSCOM has also awarded us an equity-free grant of Rs. 5 Lakhs for the same. Before that Anukai has raised equity free Rs 7.5 lacs from grants. We have also filed a patent for InteLights with application no: 201911045568.



Gaurav Goyal (middle) shaking hands with one of the investors after raising investment during India Fund Fest.



Team deploying their solution on a traffic light in Mohali

#### 4. Contribution of NewGen IEDC in the same

- a. NewGen IEDC grant helped us to purchase our first working model and gave us access to high class lab facilities to work.
- b. It also helped in connecting with various experts.
- c. It provides us platform like India Fund Fest, Punjab Innovation Summit to showcase our idea and get wide visibility.

#### 5. Future plan

The future plan is to develop a self-sustaining solar powered model of our product that will be used in future smart cities.

## **Project Title -BrilTAB Edu-Kit-1**

### **1. Student team details (with contact information)**

<b>Member</b>	<b>Name</b>	<b>Email ID</b>	<b>Contact Number</b>
<b>Member 1</b>	VirenderKadyan	drvirenderkadyan@gmail.com	9992037007
<b>Member 2</b>	PuneetBawa	puneet.bawa@chitkara.edu.in	7986268917
<b>Member 3</b>	Gourav	gourav171267.cse@chitkara.edu.in	8950192557

### **2. Brief description about the student start-up**

Founded in 2019, Dagriation (DAT) Solutions Pvt. Ltd. with an aim of providing education to millions of visually impaired people, yet has come a long way from its beginnings. When the startup first started out, their passion for “transforming the society for better education” drove them to do tons of research, so that Dagriation (DAT) Solutions Pvt. Ltd. can offer you "the world's most customary and affordable braille device". Further, one more product for farm tech innovation for “an intelligent urea spreading machine” was built and was equally important as the rest of society so the startup came up with upgraded latest technology with regards to precision farming.

### **3. Startups entrepreneurial journey from ideation to prototype or commercialization along-with 2-3 high resolution photographs**

The innovative excursion started when Dagriation Solutions Pvt. Ltd., saw a colossal customary gap in the market. There was anything but a solitary advanced moderate learning gadget for little children that taught them Braille language during their beginning stages of education. The team started with an idea with an aim of filling the gap. The idea was to develop such an innovative device with an objective of diminishing the torment purpose of low Braille literacy rate among the visually-impaired by helping them learn how to peruse and write in standard Braille language. Subsequent to inquiring about and almost prototyping the thought further, the team took some time and imparted their underlying model to the Patiala School for the Blind in Punjab Region. In the wake of getting the input, the following target was proportional down to another plan, which once caused us to return to the ideation board in light of stimulating new provokes identified with the structure and the size. However, soon a comparative effort was made and the underlying prototype for the product and armed with the learnings, the more participation and feedback at long last helped the team with an upgraded rendition of the prototype.





#### **4. Contribution of NewGen IEDC in the same**

The team was given the NewGen IEDC grant of INR 2,50,000 which has raised business visionary's inspiration, advancement and commercialization of our innovative considerations. Moreover, the NewGen IEDC has managed and helped the team on different parts of learning and trend setting innovation ideas with convenient companion review and progress meetings. Additionally, the NewGen IEDC award has empowered a decent path in building our startup's perceivability and validity.

#### **5. Future Plan**

- a. Carrying out the vital and essential technical requirement of any product testing coordinating with the product development team upon the design cycle.
- b. Monitoring, analysing and ensuring end-user relationships based upon the technical survey in order to ensure product feasibility.