





<u>Chaitanya Bharathi Institute of Technology</u> <u>IIC – CBIT Annual Report on Innovation and Entrepreneurship activities</u> 2022-23

A. About IIC Institute

1. Vision / Mission of IIC established at the Institute

Vision Statement

Facilitate Idea Generation, Pre-Incubation, Incubation, and Human Resource development followed by Start-ups and Businesses accelerated by Creativity, innovation, Entrepreneurship, and IPR to benefit Students, faculties, and other innovators with a knowledge base as the main driver.

Mission Statement

- Provide a dynamic, vibrant ecosystem for the Students, Faculties, and Entrepreneurs, start-ups with a focus on to develop new technology and process.
- Foster creativity and innovation to promote entrepreneurship and enhance socioeconomic and cultural development by providing inputs through Lecture Sessions and Visits to Industry.
- Focus on methods and systems like AI and ML for enhancing access to healthcare, agriculture & farming, sustainable environment, and Industrial technological development.
- Promote innovation in the Higher Educational Institution by establishing and streamlining innovation and start-up ecosystem at the institutional level.
- Alignment with the Proposed NISP, MSME, and ACIC Objectives.

The objectives are as follows.

- To promote and motivate students, faculty, and Entrepreneurs for the development of the new technology/ knowledge/ innovation-based product and process.
- To promote design thinking process among the students and provide the platform for speedy development of technology
- To establish a single window for Pre-Incubation and Idea Incubation.
- Provide comprehensive web-based information and basic advice.
- To enhance the domain knowledge/skills/Training to think differently for developing the innovative products/services
- Activities for the promotion of traditional knowledge have to be conducted with the holders of such knowledge and product development.
- To build a vibrant ecosystem, by establishing a network between academia, MSMEs, and Govt/PSUs for spreading the entrepreneurship culture amongst the people.
- To promote innovation in the Institution through multitudinous modes leading to an innovation promotion eco-system in the campuses, building and streamlining innovation and start-up ecosystem at the institutional level.

2. Journey of IIC established at the Institute

Ministry of Education, Govt. of India has established an 'Innovation cell' to systematically foster the culture of Innovation in all Higher Education Institutions (HEIs) across the country. MIC has always focused on creating a complete ecosystem that will foster the culture of Innovation across all educational institutions from **ideas generation** to **pre-incubation**, **incubation**, and graduating from the **incubator as successful start-ups**. MIC has launched the Institution's Innovation Council (IIC) program in collaboration with AICTE for Higher Educational Institutions (HEIs) to systematically foster the culture of innovation and start-up ecosystem.

Primarily, IICs' role at CBIT has been to engage a large number of faculty, students, and staff in various innovation and entrepreneurship-related activities such as ideation, Problem-solving, Proof of Concept development, Design Thinking, IPR, project handling and management at Pre-incubation/Incubation stage, etc., so that innovation and entrepreneurship ecosystem gets established in our Institute. It may be mentioned that CBIT has also collaborated with T-Tribe for the Launchpad Program to enable our students to develop Entrepreneurship culture and attend all the training programs conducted by T-Tribe

3. Diversified representation in the IIC established at the institute from industry, Interdisciplinary & Departments/ Units, etc.

A. Brief mention of key functionaries at the IIC Institute

- 1. President: Dr P. Ravinder Reddy, Principal
- 2. Vice President & convenor: Dr. U.K. Choudhury, Advisor(I&I)
- 3. Coordinators: 10 (each department one Coordinator) and 5 co-opted members

5. Pre-Incubation Units, If any

Sno.	Pre-incubation Unit
1	IT - IoT Lab
2	IT - BDA Lab
3	Robotics Process Automation Lab
4	Automotive Design and Fabrication Center
5	Artificial Heart Innovation Center
6	AI based Transformer Monitoring System
7	CBIT – Kernel Sphere IoT Center – GPS Tracking
8	CBIT – MSME Incubation Center – IMRC
9	CBIT – Cyber Security Center of Excellence
10	CBIT – Entrepreneurship Development Cell
11	CBIT – Zoom Technologies – AI ML and Cyber Security

6. Incubation Units, If any

Sno.	Incubation Unit
1	MSME Incubation Centre
2	ACIC-CBIT Innovation Centre
3	CBIT-GPS Tracking Project
4	CBIT-AI Transformer Project
5	CBIT - Digintrude Cyber Security SOC Center

7. IP Facilitation Unit, if any: IP Cell Headed by Dr. U.K. Choudhury, Advisor (I & I)

8. Highlight Facilities, Infrastructure of Pre-Incubation & Incubation kind and Student bodies/clubs engaged in the promotion of Innovation and Entrepreneurship in the campus.

Facilities available with CBIT, Incubation and Pre-Incubation Centers:

Research and Development Centre:

To enhance research activities and cultivate pleasant research atmosphere, a multi-crore state of the art building with all modern technical facilities is established at CBIT. It accommodates all departments to carry out advanced research, establish incubation cells and start-ups. The R&D Centre, with its State-of-the-Art Infrastructure, has been established to promote Research and Innovations amongst the Faculty and Students by identifying new Research Areas, developing Projects leading to Publications, Products, Innovations and Start-Ups. The primary focus will be on the Time and Cost bound Projects sponsored by Government, Public, Private, National and International Agencies and Autonomous Bodies. To achieve results on these sponsored Projects within the acceptable timelines, the Centre has been structured into Sectional Areas for streamlining its functioning in different Technology Domains. The Sectional Areas will together cover all the Disciplines/ Inter Disciplinary Topics in which the Institute has expertise. All research activities are being streamlined to make a mark in 'Make in India' concept of Indian Government.

MSME Incubation Centre

CBIT has established its Business incubator with MSME in the year 2019. The main aim of the incubator goes hand in hand with MSME and ACIC objectives. The main goal is to nurture ideas from professionals / students/ local community and foster such entrepreneurial ideas in a supportive environment before they become attractive for venture capital. The Incubation center aims to promote and support untapped creativity of individual innovators and to assist them to become technology-based entrepreneurs. It also seeks to promote networking and forging of linkages with other constituents of the innovation chain for commercialization of their developments, provide support and training for students and innovators who are interested in converting their social ideas into social startup. Incubation Centre, CBIT facilitates necessary infrastructure, prototype development support, research assistance, help in getting funding, business consulting assistance, mentoring and guidance to make their idea into a successful venture.

The proposed Innovation and Incubation policy will be applicable for all MSMEs, startups, incubates under CBIT-MSME Incubation center managed by CBIT and also the ACIC-CBIT Incubation center is also established at CBIT. The incubation Centres aim at :

- To create awareness about the importance of entrepreneurship among the students and local community
- To promote new technology/ knowledge/ innovation-based startups.
- To promote design thinking process among the incubates and provide the platform for speedy commercialisation of technology
- To enhance the domain knowledge / skills to develop the innovative products / services

• To build a vibrant startup ecosystem, by establishing a network between academia, financial institutions, industries, and other institutes.

Six MSME Start-ups are being mentored at ACIC-CBIT R&E Foundation for Innovative product development. One Women Entrepreneurs is being supported. 9 ideas are uploaded for Hackathon-2.0 by MSMEs, Start-up, Faculties and students for funding from MoMSME.

A strong student and alumni network to support in ideation

Alumni are the strongest representation of CBIT in the outside world. The CBIT Alumni is a family of more than 30000 Alumni, many of them are doing extremely well in their respective fields and also contributing to the growth of our institute with their support and expertise. The Alumni Relations Team engages in various initiatives to connect with the alumni at various platforms such as -

- Mentorship Programs: Building a strong mentor connect between alumni and interns to help the interns in the organizations.
- ✓ Alumni connect drives: Connecting with alumni during various drives and taking their feedback to grow further.
- ✓ **Guest Lectures:** Inviting industry experts to share knowledge with students.
- ✓ **Alumni Meets**: Hosting meets to develop strong bond with them.
- Homecoming Alumni from different batches come back to college for two days to relive those moments and memories.

Institute Innovation Cell and ARIIA Ranking.

CBIT has established its own Institution's Innovation Cell (IIC) to systematically foster the culture of creative thinking amongst its students aspiring to be entrepreneurs with innovative minds. Primarily, IIC established at CBIT will engage large number of students, faculties in various innovation and entrepreneurship related activities such as ideation, Problem solving, Proof of Concept development, Design Thinking, IPR, project handling and management at Pre-incubation/Incubation stage, etc., to establish innovation and entrepreneurship ecosystem. IIC conducts a number of programs related to Innovation, Incubation, Entrepreneurship, Startups and IPR related activities for the students and faculties in order to create innovation culture. IIC organised 50 Plus Programs for students and faculties related to Innovation, Incubation, IPR and Entrepreneurship. World Entrepreneurship day was celebrated at CBIT where many experts delivered lecture sessions and shared their experience. A number of IPRs are filed under the initiative of the IPR Cell and IIC.

Performance Rating: CBIT was awarded 97.5 marks out of 100 and also obtained 103 Reward marks which helped CBIT to be among the Top Performers (with **4 Star Rating, one among the highest rating evaluated by MIC**). CBIT IS Recognised in the Band **"EXCELLENT**" category in the ATAL Ranking of Institutions on Innovation Achievement (ARIIA) 2021.

Smart India Hackathon and Ideathons.

CBIT's 3 teams having six members each were selected for final competition. All the teams participated in the competition and **one Team Bagged the Prize**. Details available on SIH website.

CBIT achieved **No. 1 Position in the I&E Ecosystem Journey/Achievements at IIC Regional Meet arranged by Ministry of Education Cell (MIC) & AICTE at SNIST Hyderabad on 12th August**. 160 Plus Colleges from Telangana and AP Participated. Official from MIC also participated. (Date: 12-8-22)



ARIIA and IIC Certificates

T-Hub's T-Tribe Launchpad Program.

Partnership with T-Hub Launchpad program on Entrepreneurship

CBIT, had partnered with T-Hub's PAN India initiative, that envisions promoting and support Innovation & Entrepreneurship in students thereby creating wealth, strengthening the economy, and establishing sustainable employment opportunities in India. T-Tribe's Launchpad and the Masterclass Programs would nurture & source the individuals and their endeavours and create world-class entrepreneurs. T-Tribe plans to accomplish its goals of creating world-class entrepreneurs through a two-way approach, "Launchpad" and "Masterclass". CBIT has taken membership for the Launchpad Platform i. e One-year long entrepreneurship engagement that is designed for the academic institutions that believe in innovation and entrepreneurship and always go the extra mile in supporting their students to achieve their vision. 50 students of CBIT were nominated and have attended a number of training program sessions arranged under the T-Tribe's Launchpad program from August 20 to May 21. Launchpad programs has focussed on developing an innovation ecosystem among institutions and students. The comprehensive curriculum has also inculcated entrepreneurial competencies and entrepreneurship as knowledge and practice among the nominated students. 50 students of CBIT were nominated and attended a number of training program. 41 students were certified by T-Tribe for the Entrepreneurship program. 60 students are nominated for the program during 2021-22 and all students were certified.

A T-Hub Initiat t;hub icale o This certifies that Piyush Agarwal CBIT has successfully completed the T-Tribe LaunchPad Program 2019-20. The student has performed exceptionally well throughout the program Piyush Agarwal has everything that takes to be a successful entrepreneur. Gilari Nam PROGRAMS T-HUE

Sample Certificate Issued by T-Hub

Skill Development Program.

- A number of Skill Development programs/Internship are arranged by CBIT for the students. The skill acquired by the students will help them to plan for development projects, participate in commercial installations and carry out further research in this area. CBIT was issued appreciation certificate.
- Products developments like Cyber Security system, GPS System, Transformer Monitoring system along with MSME Company M/S Kernel Sphere. 43 students participated during the product/software development and demonstrated knowledge & understanding of the engineering and management principles and could apply this knowledge.
- With MSME and Industry interaction, Students learned how to Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary project development.
- CSE and IT Department of CBIT conducted a number of Software related skill development programs for the students.
- CBIT and NiMSME conducted Two FDPs for faculties for HEIs on 1) Management of Business Incubator and 2) Analytics- Data Driven Decision Making.

AICTE IDEALAB Establishment

AICTE has approved for the Establishment of the prestigious **Idea Lab** at CBIT (one Among four colleges at Hyderabad). AICTE will be providing a fund of Rs 15 lakhs for the IDEALab Establishment (As Reimbursement). As per the scheme mentioned in the Letter (issued by AICTE), CBIT's Contribution will be Rs. 80 lakhs. The IDEA Lab is being established by CBIT to facilitate the students to have Engineering Exploration and from Idea to Prototype Development. Under this IDEA Lab the Drone, Robotics, Digital manufacturing Sections are already established and students are being exposed to this emerging technologies for their Idea to prototype conversion. Other equipment and facilities are being planned.

Atal Community Innovation Centre (ACIC)

Atal Innovation Mission (AIM) at NITI Aayog is mandated to promote a culture of innova tion and entrepreneurship in India. Until now, AIM has selected a number of institutions for supporting them in establishment of Atal Incubation Centres (AICs) programme. CBIT has also been selected from Telangana by AIM for the establishment of Atal Community Innovation Centre (ACIC) at our Campus. ACIC-CBIT Reserach and Enterpreneurship Foundation has been registered by CBIT as a Special Purpose Vehicle (SPV) under the comapanies Act. The ACIC will provide requisite infrastructure for innovation in the unserved / underserved regions or having potential to build innovation ecosystems in various parts of the country. Thus, nurturing entrepreneurs from the community to help them address various societal challenges.

The objective of the ACIC program is to offer unique and incentivized solutions, whichwill encourage students, researchers or any individual/group of individuals to ideate and esign novel innovative solutions for the communities in and around the Atal Community Innovation Centers. The program would deliver the objectives to ensure,

- Nurture innovators to ideate in areas of societal importance
- Design thinking process to spur creativity
- Opportunity for everyone to innovate, ideate and design solutions, irrespective of their age
- Community oriented approach enabling innovative solutions through Community Tinkering
- lab facilities in the Community Innovation Center
- Capacity building of emerging innovators in evolving technologies and designing their innovations from ideation to impactful solutions.
- Partnerships with local industries / institutions in problem solving through innovative offerings in terms of products, services and processes and identifying innovation challenges
- Public Private Partnership (PPP) to enable support for financial sustainability and
- encourage participation of central agencies, PSUs, other legal entities etc. to mobilize resources for running the program

INCUBATION CENTER at CBIT encourages and mentors ideas from diverse domains as mentioned below

- ✓ Agricultural Farming
- ✓ Water, Sanitation and Solid-Liquid Waste Management
- ✓ Waste heat Recovery Systems
- ✓ Indian Traditional Knowledge system based products.
- ✓ Bio Technology and health monitoring systems and products
- ✓ COVID-19 related solutions and products.
- ✓ New technology and process for enhancing literacy rate in villages.
- ✓ Virtual lab creation and education related applications.
- ✓ Building Materials/Construction Technology
- ✓ Renewable Energy and Environmental sustainability
- ✓ Energy conservation, Energy efficient Motors and Equipments
- ✓ Electric Mobility
- ✓ Solar Photovoltaic systems and design optimisation
- ✓ Information & Communication Technology (ICT)
- ✓ Application of Artificial Intelligence and machine Learning for product/process
- ✓ Additive Manufacturing
- ✓ Drone Technology
- Other emerging areas of social / national importance
- Twenty-five plus Start-ups/Idea Incubation are being mentored at CBIT's ACI Incubation centre for their Idea Incubation and product development. One Women Entrepreneurs is being supported.
- Outreach program conducted to address the issues faced by the communities of Maharjpet Village with innovative solutions by CBIT's students and also to involve the youth and students of the community during the development. A few activities are highlighted below.

9. Highlight Achievements (Narrative/Graphical/tabular representation)

9.1. Number and Different types of I&E and IPR Activities Conducted

S.No	Date	Event Name	Events description and outcome
1	12/1/2022	Community Outreach Program to Gopalpuram, R.R District, to address youth of Gopalpuram	ACIC CBIT team visited Gopularam village, Ranga Reddy District for community outreach program on Swami Vivekananda's 159th Birth anniversary to address all the Village youth regarding the importance of innovation and entreprneurship. They were also told about the upcoming events, facilities in the centre.

Recently conducted Outreach program

2	31/1/2022	CHAITANYAM -	Chaitanyam-Freshmen Ideathon was exclusively organized
		Freshmen Ideathon (Final)	for first years of all degrees, Drop outs, School students and Rural innovators to encourage them in providing sustainable solutions to the society or community problems. The statistics are as follows: 122 teams registered, 275 total participants, 40 Women Teams, 03 PwD teams, 79 General Teams, No. of schools/Colleges participated 14 from 3 States and 10 SDGs are addressed. Out of which 14 Teams are announced as winners of Chaitanyam Freshmen Ideathon in all 3 categories. These Ideas are being further mentored for product development.
3	17/3/2022	Community Outreach Program at Poddatur Village	ACIC reached out to our nearby community (Poddatur Village) and distributed 100 fruit bearing plants and medicinal plants to villagers and asked them to update the growth of plants. The farmers were explained about soil preparation and how to increase soil strength and grow their seasonal fruits, vegetables and medicinal plants The future plan is to do capacity building on Entrepreneurship, Marketing and Digital skills so that their micro businesses can sustain themselves.
4	28/5/2022	Idea to Prototype First Cohort (I2P) at CBIT	Idea to prototype is ACIC CBITs Flagship event where finalists of Ideathon are incubated and see that the ideas are converted into prototypes. I2P was conducted and 8 teams out of 10 teams have developed their prototype and showcased their prototypes. The teams were advised for technical improvements and IPRs.
5	30/5/2022	Innovate for Menstrual Waste Hackathon along with M/s WaterAid & the Telangana State Innovation Cell (TSIC)	The Hackathon aims to find solutions for treatment and disposal of used menstrual absorbents in a manner that is safe for the users, environment friendly and can be up- scaled within current waste management systems and processes. To find end to end solutions for menstrual waste management in both urban and rural contexts. Three Start- ups are being incubated at ACIC-CBIT.
6	5/6/2022	Community Outreach Program at Zahirabad along with RICH Hyderabad.	An interaction session with dryland farmers of zahirabad to understand their problems and best practices. The objectives set for this outreach program were:1) To interact with the farming community to identify problems faced in all stages of crop production and sales. 2) Shortlist problem statements for possible solution. 3) Ideation/ hackathon involving students, innovators and start-ups in the region to develop innovative solutions.

			Problems/Issues related to agriculture in the area identified. This will be solved through Agree Hackathon Planned on 8^{th} and 9^{th} July.	
7	1/7/2022	Community Outreach Program Ootapally, DOMA Mandal on Health Related solutions.		

Pl. visit for sample event photos at https://drive.google.com/drive/folders/1BT0Mb-hX3sFw-A0-Nn6gy74bxb6hY2La?usp=sharing

Note: Please visit CBIT and ACIC-CBIT website for further details. The startups details are also uploaded as Idea repository.(Photos on <u>http://202.65.141.227/wp-content/uploads/Gallery</u>)

9.2 Details of achievement of these centres are enclosed in this report at the end. Performance Rating: CBIT was awarded 97.5 marks out of 100 and also obtained 103 Reward marks which helped CBIT to be among the Top Performers (with **4 Star Rating, one among the highest rating evaluated by MIC**). CBIT IS Recognised in the Band **"EXCELLENT**" category in the ATAL Ranking of Institutions on Innovation Achievement (ARIIA) 2021.

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Two lecture sessions were also delivered by our faculties as Resource persons. Covered in the Regional meet Report.

9.3 Smart India Hackathon and Ideathons.

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9.4 MoUs with Industries and Other Institutions.

I&E Related MoUs for the last two years are uploaded with the following link for information..

(MoU 2021-22)

https://www.cbit.ac.in/wp-content/uploads/2022/12/3.7.2-MOUs-for-2021-22.pdf

(MoU 2020-21)

https://www.cbit.ac.in/wp-content/uploads/2022/12/3.7.2-MOUs-for-2020-21.pdf

9.5 CBIT's IPR Data Base: CBIT has More than 55 IPRs to it's credit. 10 Patents are granted. 13 copyrights filed. The details of IPR, Granted/Published/filed etc. available in the following link.

https://drive.google.com/file/d/1e6-K-FnmhfYdF7HfHp7rnmygA-_xVpne/view?usp=sharing

9.6 Product selected for Display on 15th August celebration (arranged by TSIC)

Two teams from CBIT were selected to display their products on 15th August at Hyderabad. Honorable Education Minister ,Telangana Madam Savitha Reddy visited the product display. The participants were issued certificates.



The student and faculties are explaining about the development.

- 2. No. of student's & faculty ideas generated: 55
- 3. No. of student's & faculty Innovation/prototypes developed: 26
- 4. No. of IPs generated, published, and granted: 42 patent and 13 copyrights
- 5. No. of Student & Faculty Start-ups/Ventures established: 04
- 6. Amount spent on promotion and awareness generation on Innovation Entrepreneurship in the campus: Rs. 7,75,000/-
- 7. Amount grant or fund supported to student & Faculty lead Innovations, start-ups, and IPR: Rs. 195426 /-
- 8. No. of Technology Transfer and Commercialisation happened: 02

10. Highlight few best IIC Faculty/Student members and their achievements/ Rewarded for

the innovations at different forum [Profile of few faculties with 2-3 lines of their achievements]

- 1. Dr. P. Ravinder Reddy, Presidents, IIC involved in artificial heart development and 4 granted patents and 6 published patents. Guided 24 PhDs.
- Dr. U. K. Choudhary, Convenor, IIC guiding for the patent application process, mentoring for Startups and students for Idea incubation, was a resource person for IIC and IEEE activities of CBIT and other Institutes. He has 38 years of R&D and Technology management Experience in BHEL and ahs about 14 granted patents and 30 published patents.
- 3. Dr. N. L. N. Reddy, member, IIC involved in arranging internships in industry
- 4. Dr. P. Prabhakar Reddy, Dr Narahari Sastry, Dr Rajnikanth Member, IIC were the guest speaker for Entrepreneurship.
- 11. Highlight selected best Innovations & images with mention of inventor/innovation name

Inventor:Start-up Mr. Uday Bhaskar, MSME Start-up, Sonic Airtek Pneumatic conveyors. Mentor: Dr U.K Choudhury, Prof. & Advisor(I&I) CBIT

12. Highlight selected start-ups established by students/faculties with mention of founder/cofounder name

Start-ups Idea Incubation Details

S.No	Startup/ Incubation Name	SDGs	About Startup	Stage
1	College Bag Pvt Ltd (CBIT's Alumni)	Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	College Bag private Limited was established in Nov, 2020 with registration as MSME by one of the 2019 ECE batch Alumni Mr K. Jeevan Reddy . An MoU has been signed by CBIT with M/s College bag Pvt. Limited for mentoring and guiding the start-up, which will work in the area of innovation designs & technology which helps college students, & Farmers etc.	Incubation Stage
2	M/s Fastworks Consulting Services Pvt Ltd (3D Labs India) (MSME and Start-up)	Goal 9 (Goal 9 or SDG 9) is about "industry, innovation and infrastructure	M/s Fastworks Consulting Services Pvt Ltd (3D Labs India) is a digital solutions provider based in Hyderabad. It has been agreed to develop Innovative designs in the fields of 3D Printing technologies, Agriculture application of Drone and Robotics with technical Guidance and mentorship from the incubation Centre at CBIT.	Incubation Stage

3	Interleaved multidisciplinar y Research Center (CBIT- MSME)	Goal 3 GOOD HEALTH AND WELL-BEING	 IMRC is interested in engaging and idea incubation CBIT(A) in areas of mutual interest with focus areas as follows. 1.Equipment development for Covid-19 related solutions. Mechatronics, Medical Electronics and equipments etc. 2. Lab model prototype of Covid related protection equipments are under advanced stage of development . 	Incubation Stage
4	Life Achievement and Life Meditation (LAALM) Pvt Ltd (Start-up)	SDGs – 3 (Good Health & Well Being); 8 (Decent Work & Economic Growth); 11 (Sustainable Cities & Communities)	LAALM Products & Services: LAALM offers the following core products / services 1) Holistic Guided and Unguided Meditation catering to Body, Mind and Soul of Human Being. 2) Topical meditation sessions to improve various aspects of life such as relationships, abundance, focus, attention, etc.	Incubation Stage Registered as a private limited company
5	Startegy-M (By CBIT's Faculty)	SDGs 4 Quality education SDG 9- Industry, Innovation and Infrastructure	StrategyM provides various consultancy services focusing on Strategic Management to organizations of different sectors, to build careers and organizations. StrategyM is the parent firm which is also used to promote The DOT and House of HRs	Incubation Stage.
6	Knight Group (MSME)	SDG 12 Responsible consumption and Production SDG 13 Climate Action	Kinght group is into Manufacturing of an In- wheel motor, Semi autonomous electric car and Increasing Day to Day range with Solar cells	Incubation Stage
7	Dirisinapu Agritec Solutions (OPC) Pvt. Ltd. (Faculty CBIT- Startup)	SDG 12 Responsible consumption and Production SDG 13 Climate Action	Dirisinapu Agritec Solutionsare building Decision-making tools that bring consistency, dependability and sustainability to agri- businesses.With capabilities of live reporting, analysis, interpretation and insight that span across geographies, they are digitizing every farm, while data-managing the entire ecosystem. The smarter agrisolutions are powered in real-time; for users to archive patterns, predict trends, to make a blueprint for the business in the times to come.	Incubation Stage
8	Orange Squadron MSME)	SDG11 – Sustainable Cities and Communities	Orange Squadron is Developing an affordable IoT digital device for the safety of women.	Incubation

9	Artificial Intelligence - Driven Bra for Early Breast Cancer Detection	SDG3 : Good Health and Well Being	The Smart Bra will help to detect breast cancer using the piezoelectric sensors embedded in it. Unlike existing cancer- detection technology that uses radiation, this technology emits ultrasound waves – like those employed in high-intensity focused ultrasound (HIFU) and low-intensity pulsed ultrasound (LIPU) – to perform echography scans for potentially cancerous cells. The ultrasound waves are generated using piezoelectric sensors, which are devices that run on energy generated when pressure is applied to a piezoelectric material. After wearing the Smart Bra, the ultrasound technology would detect a suspicious mass if any after which the wearer will be alerted. The wearer can then follow up with a specialist.	Incubation
10	Nirbhay 2020 (women safety device) (- Registered as an MSME)	SDG 11 – Sustainable Cities and Communities	Nirbhay 2020 is a device helps women to protect themselves from any attacks. And be able to pass information to their family members and to the police and friends. In addition, the device can also give an electric shock to those who come to attack them. The device is able to pass all this information to its family members and friends, the police, the live location and messages and calls that he is in danger with a single click, regardless of our phone	Pre- Incubation
11	Automatic coconut water extraction machine	SDG 9- Industry, Innovation and Infrastructure	The company is developing a machine used in extraction of coconut water inefficient way where it involves minimal manpower	Pre- Incubation
12	Truss (CBIT- Registered as an MSME)	SDG- 4- Quality education , SDG 8- Decent work and economic growth, SDG9-Industry, Innovation and Infrastructure SDG17-partnership for goals	Truss are developing a student entrepreneurial education and networking platform with the aim to aid in the education of students from all over the country to learn the necessary skills to be an entrepreneur. Also providing a secure end to end networking platform where one can meet the most compatible business partner	Pre- Incubation
13	Waste Management	SDG-13, Climate Action SDG 11 – Sustainable Cities and Communities	They are working on swachh bharat mission and providing waste solution to Industries and municipal Corporation. We are making products like industrial pallets and School benches with waste plastic and industry waste like ceramic waste and foundry industry sand waste.	Pre- Incubation

14	AR Hologram Teaching in rural areas (CBIT student Regd as an MSME)	SDG-4, Quality Education	This team is developing effective teaching in rural areas using the AR hologram technology. The aim is to improve student and teaching experiences in the rural community	Pre- Incubation
15	Sridevi Machinery Works Private Limited (Start-up)	SDG-9, Industry, Innovation and Infrastructure	Sridevi Machinery Works has built a machine- Mono Wheel Man riding power weeder will help farmers in reducing physical burden, reduce the crop loss and protect farmer from the harsh summer climate.	Rural Innovator Registered startup
16	BALANCE (CBIT)	SDG-3, Good Health & Well Being	An application that promotes users towards mental wellness and assists patients with psychological treatment using artificial intelligence with behavioral analysis.	Pre- Incubation
17	JUMBO (CBIT students)	SDG 12 Responsible consumption and Production	With the goal to save user time and food wastage the team wants to Develop an application for automating mess/canteen food distribution systems.	Pre- Incubation
18	Go Artisan (CBIT students)	SDG 8, Decent Work and Economic Growth	The team has an idea to set up an online platform as well as offline stores across the country to sell the handicrafts and handlooms.	Pre- Incubation
19	Geo-Alass (CBIT students)	SDG 13- Climate action	The team is developing a method Collecting e- wastes from various places and gathering them at one place through the E-sols app without harming the environment.	Pre- Incubation
20	AGRICARE	SDG-12, Responsible Consumption and Production	The team is trying to bring awareness to farmers regarding the adverse consequences due to their agricultural practices and giving them specialized and personalized solutions for their problems with advance healthy methods	Pre- Incubation
21	Wanderers (CBIT students)	SDG 8, Decent Work and Economic Growth	Team wanderers are Providing equal job opportunities for the unemployed and poor by creating an app and website that will help them locate nearby jobs in the area by using AI. Along with that, they intend to provide food and shelter for the old by locating nearby old age homes and childcare centers for poor children who are unable to access education.	Pre- Incubation

22	BHARAT REVIVES (CBIT students)	SDG 8, Decent Work and Economic Growth	The goal is to create an online platform where various artists and artisans can sell their products in order to increase their income while also propagating the beauty of the art. The team wants to try to preserve such art forms and restore India to its former cultural heritage.	Pre- Incubation
23	FoodResq (CBIT students)	SDG 12, Responsible Consumption & Production	The team wants to work on reducing food wastage using	Pre- Incubation
24	Your life assist (for assisted living) (CBIT students)	SDG-3, Good Health & Well Being	The idea revolves around developing an app that can assist people in their day-to-day lives. This app will target helping the elderly and disabled by providing them with the necessary health care facilities and providing a way for them to socialize and connect to people for their physical and mental well- being.	Pre- Incubation
25	Spartan (CBIT students)	SDG-16, Peace, Justice & Strong Institutions	An informative platform/Organization to bring awareness about human trafficking	Pre- Incubation
26	Token Disc	SDG-8 Decent Work & Economic Growth	Crypto based educational, investment and trading app	Pre- Incubation
27	Sonic Airtek (MSME)	SDG-9, Industry, Innovation and Infrastructure	Development of a conveyor belt system for transport of cultivated crop for further processing. The proposed product Innovation will help in shifting the raw material from farm to go down and go down to market yards in an efficient way.	Incubation Start-up Commerciali sation.
28	Shallow Waterways Shipping Pvt Ltd. (Start-up)	SDG-9, Industry, Innovation and Infrastructure	Manufacturing a Proper Hexagon Container (with Bottom Door for unloading) for grains, seeds & Fertilizers: storing, shifting and transporting easily, quickly, safely & economically anywhere in the world.	Incubation Stage Startup

13. List if any breakthrough Innovations / Technology Developed at the institute (2-3 technology with 2-3 lines about technology and innovation **List Enclosed as above on all start-ups.**

Sonic Aitertec Systems. Start-up SDG-9, Industry, Innovation and Infrastructure (SI No-27) Mr. Uday Bhaskar with the developed model. Model-1 Commercialized. Model-2 with improvements being worked out.





14. Participation of IIC-institute in various programs of Central and State Govt. Highlighting specially for the schemes or programs

- 1. **ARIIA** Participated ARIIA 2021 and 2022 Ranking under Private or Self-Financed College/Institutes **Excellent Band in ARIIA 2021.** 2022 results to be announced
- 2. NISP Adoption status Trained Faculty, Policy Formulation, Policy Implementation: Yes, faculty trained, innovation/Incubation/Startup Policy formulated and is under implementation.

Website url: <u>https://www.cbit.ac.in/research_post/nisp/</u> <u>https://www.cbit.ac.in/wp-content/uploads/2020/11/CBIT-Innovation-Inncubation-</u> <u>start-up-policy-28th-July-NISP-PDF.pdf</u>

3. **Smart India Hackathon** etc.: Yes Students participated in the Smart India Hackathon Three s comprising of 18 students from the department of CSE, CBIT were shortlisted for the Grand Finale of the 'SMART INDIA HACKATHON' software edition and one team (6 students) won the prize.

Participating Teams.

https://docs.google.com/spreadsheets/d/1UC1NFv5DWgZ9Qixt Lay6ZQiPFy07qak/edit?usp=s haring&ouid=113488607034339629221&rtpof=true&sd=true



15. Testimonials from IIC members and external about IIC institute and IIC of MoE's Innovation

Cell

M. Images





CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)

No.CBIT/037/Admn./2023

Dt.16.03.2023

INSTITUTE INNOVATION CELL

1.	Prof. P. Ravinder Reddy, Principal	Chairman
2.	Prof. N. V. Koteswara Rao, Director-IQAC	Member
3.	Prof. A. D. Sarma, Director-R&D	Member
4.	Dr. N.L.N. Reddy, Advisor-CDC	Member
5.	Prof. P. Narahari Sastry, Dept. of ECE	Member
6.	Prof. K. Rama Krishna, Dept. of IT	Member
7.	Dr. Y. Rajasri, Assoc. Prof., Dept. of Biotechnology	Member
8.	Dr. A. Sangeeta Gupta, Assoc. Prof., Dept. of CSE	Member
9.	Dr. G. N. R. Prasad, Asst. Professor, Dept. of MCA	Member
10,	Mrs. V. Sandhya, Asst. Professor, Dept. of Mech. Engg.	Member
11.	Mrs. M. Sangeetha, Asst. Professor, Dept. of SMS	Member
12,	Prof. Umakanta Choudhury, Director-I&I	Convener

Prof. P. RAVINDER REDDY PRINCIPAL