

Centurion UNIVERSITY

Shaping Lives... Empowering Communities...

2022 INCUBATION REPORT

CENTURION UNIVERSITY OF TECHNOLOGY AND MANAGEMENT

Corporate Office

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Content

Sl. #	Subject	Page #			
1	Introduction	01			
2	University's Academic Ecosystem	02			
	Centurion University of Technology and Management and Gram Tarang (The University-GT) Ecosystem				
	Gram Tarang Employability Training Services	02			
	Urban Micro Business Centre	03			
	Infrastructure and Equipments	04			
3	Center for Innovators, Entrepreneurs and Commercializations (CIEC)	06			
	The University and CIEC	06			
4	Track Record in Promoting Start-ups, Innovations and Industry Tie-ups	08			
	Start-ups	08			
	Industrial Linkages				
5	Approach and Methodology Adopted for Incubation Process	11			
	Direct and Indirect Approaches	12			
6	Prototyping Facility				
	Calibration and Testing Facilities				
	Incubation Space	17			
7	Special Focus	18			
8	Case studies: Student Entrepreneurs				
9	Women Entrepreneurs				
10	SDGs and Growth of Entrepreneurship				
11	Towards Atmanirbharta: Hon'ble Prime Minister`s Make in India Initiative				
12	Social Enterprise: A Global Outlook	29			
13	Appendix-I	30			
14	Appendix-II				

The Context



India's new Solar Power Tree takes up only 4 square feet and produces enough energy to light five houses.

How do we build a productive, progressive and prosperous nation, which is inclusive, equitable, egalitarian and sustainable?

These are intrinsically interconnected challenges and issues which every nation deals with. At global level, the SDG 2030 transcends through all these challenges besides many other issues. It is not that one is more or less important than the other hence, the issue of balancing the resource allocation while prioritising attention is the core for policy and decision makers across nations.

Today's learners and tomorrow's leaders hence, universities are navigators, influencers, anchors and creators of our communities and countries. Universities navigate social, political and economic transformation nationally and globally. However, the fundamental role universities must play is to conceive, create, and nurture skills and innovations that propel economic development sustainably and build a self-reliant nation.

In general, social enterprises in universities create opportunities to engage and interact with surrounding business clusters and communities to co-create inclusive and sustainable solutions to day-to-day challenges. Thus process, allows students a platform for hands-on and experiential learning opportunities. Thus, enhancing their employability skills and opportunities.

Entrepreneurship-based and enterprise-linked teaching, learning and research results in tangible and sustainable social impact and boosts the reputation and brad value including income for the University.

In Centurion, the focus has been to contribute to Nation Building by linking Education to Employability, Employment, Enterprise, Entrepreneurship and Entrepreneurs – The 5Es. The education delivery model has been to combine and converge teaching, training, design, project, product and production as learning outcomes.

The DNA of the University has been designed to have market-linked production facilities as part ofvarious Schools. All these enterprises are social enterprises hence, all surplus generated are reinvested to further social impact and learning objectives of students. The University is striving with all sincerity to nurture nano-mini-novo entrepreneurs. The University has been acting as an enabler for students to be job-creators instead of jobconsumers. To institutionalise the 5E model, Centurion University has established a Centre for Innovators, Entrepreneurs and Commercializations in partnership with the Start-Up Odisha (https://startupodisha.gov.in/).

The University not only fosters, mentors and nurtures students to aspire to be entrepreneurs, but also invests in and with employees to create enterprises and entrepreneurs. The sense of purpose and purpose of sense is to groom and grow an entrepreneurial and enterprise ecosystem. This report collates and consolidates various engagements, activities and partnerships relating to innovation, research enterprises, entrepreneurship, and entrepreneurs. This report also reiterates University's commitment to remain fully aligned with SDG-2030 by co-creating opportunities for societal and economic sustainability.

Mr.K. Mishn

Prof. Mukti Kanta Mishra President Centurion University of Technology & Management



About the University

Centurion University is duly recognized as a pioneer in "Skill Integrated Higher Education". Its unique model lays specific emphasis on creating sustainable livelihoods on a national scale in challenging geographies through education that results in employability and sparks entrepreneurship. This model has been recognized by several Governments and International Organizations such as UNESCO, the World Bank and National Level Policy Think-tanks such as the NITI Ayog. Recently, Centurion University's School of Vocational Education and Training has been recognized as a Center of Excellence by Ministry of Skill Development and Entrepreneurship, Government of India. It is the only University in India to be recognized as such.



About the University-Gram Tarang

Centurion University has incubated and developed multiple social outreach initiatives to address challenges faced by the communities, create/enhance livelihood opportunities as well as spark/create an eco-system of enterprises both locally and nationally. One of such social entrepreneurial outreach entity is Gram Tarang Employability Training Services Pvt. Ltd. (GTET). Since inception, it has trained 300,000 people across ~ 32 centers in Odisha, AP, Jharkhand, Assam and Punjab and is working towards achieving it's overall mission of making 100,000+ youth employable annually.

Introduction

Centurion University of Technology and Management (the University) is one of the leading Skill Universities of India. Its unique model lays specific emphasis on creating sustainable livelihoods in challenging geographies and rural demographics through education that results in employability and kindles entrepreneurship. This model has been applauded by the Government of Odisha, Government of India Policy Think-tanks such as the NITI Aayog and many leading international organizations such as the United Nations, UNESCO, World Bank, British Council among others..

Centurion University has been recognized as a "Centre of Excellence" by the Ministry of Skill Development and Entrepreneurship (MSDE), Government of India. The education model that Centurion University follows domain specific industry linked delivery structure and evaluation process in its education model. It imparts a real t ime practical exposure to s tudents endeavouring to inculcate a spirit of scientific temper among students, boosting selfconfidence and kindling entrepreneurship spirit. The curricula allows students to learn according to their interest through "Skills for Success" which offers a platform to the students to pursue a skill course of their interest, not necessarily from their specialization. For example, depending on their interest, students of Management or Commerce streams could get skilled in Welding. This effort has kindled an

entrepreneurial spirit among students evident from the several student-led start-ups in the University.

Off all the start-ups, the one of the proposed startup in health and social care is led by a female student. The student is a recipient of Gold medal in the National Skill Competition and now preparing her journey for the World Skills Shanghai 2022.



Skill integrated academics

University's Academic Ecosystem



Training life cycle @ THE UNIVERSITY-GT model

Centurion University - Gram Tarang Ecosystem

Centurion University has been established on the credo of "Shaping Lives... Empowering C ommunities" and to fulfil its purpose, it incubated several social entrepreneurial outreach entities, such as, Gram Tarang Employability Training Services (GTET), Urban Micro-Business Center (UMBC), Gram Tarang Inclusive Development Services Pvt. Ltd. (GTIDS), Gram Tarang Foods (GTF), Gram Tarang Technologies Pvt. Ltd. (GT Tech) and Gram Tarang Vocational Education and Training (GTVET).

Gram Tarang Employability Training Services (GTET)

GTET was setup in partnership with National Skill Development Corporation (NSDC) in 2010 as a follow up on the University's efforts in skill training since 2006 for the placement of unemployed tribal youth of Gajapati, a tribal, naxal effected and aspirational district. Since inception, it has trained more than 300,000 people across 32 centers in Odisha, Andhra Pradesh, Jharkhand, Assam and Punjab and is working towards training 100,000+ youth annually. GTET has established a unique institutional model of skill development which offers both long-term and short-term courses. The long-term courses include ITI, Diploma, D.Voc and B.Voc in Mechanical, Electrical, Automotive, Mining, Hospitality and Healthcare domains. The shortterm courses, which are fully residential, and placement-linked are delivered through schemes like Pradhan Mantri Kaushal Vikas Yojana, Deen Dayal Upadhyay Gramin Kaushalya Yojana, among others. These skill training courses offer training in various streams such as, CNC Operator, Machinists, Fitters, Welders, Electricians, Forklift Operators, RAC mechanics to Sewing Machine Operators and Café Brewmasters. GTET also runs joint skill development programs in partnership with leading industries in India, i.e., Ashok Leyland, Café Coffee Day, Yamaha, Volvo Eicher, Schneider, Godrej, Boyce among others. The pedagogy focuses on hands-on experiential learning through strong industry involvement and live production environment, which has ensured a placement rate of over 80% since last five years for more than 200 companies across

the country. This inclusive model in education,



THE UNIVERSITY-GT entities and it's focus

03



THE UNIVERSITY-GT entities

besides teaching skill development and selfsustainability has been designed to also kindle an entrepreneurial spirit among the trained youths.

Urban Micro Business Centre (**UMBC**)

The Urban Micro Business Centre is a Section 8 Company, actively involved in institutionalizing the social disruptive innovation in Bhubaneswar

 Skill building for employment & selfemployment in partnership with NSDC
Pure & Natural CO2 extracts, Select oils, oleoresins & total extracts from organic spices & herbs
 Banking correspondence services to unbanked villages through 10,000+ BCs
 Nano / Mini / Micro entrepreneurship among urban poor resulting in livelihood opportunities aligned with community needs
 Industry 4.0 skills for University students & developing design solutions for industry
 EdTech startup focused on further education, career paths & growth for blue collar workers

slums. The entrepreneurship development programme undertaken by the Center identified and trained 220 potential entrepreneurs from chronically poor families through nano-micronovo business enterprises. It assisted 150 women to avail zero-percent interest loans through established bank linkages.

UMBC serves as a Centre for Research and Learning Activities for students of Management and Engineering streams nationally and internationally. Students and faculty from Centurion University, Royal Melbourne Institute of Technology University (Australia), University of Queensland (Australia), University of California (Santa Cruz, USA), Tata Institute of Social Sciences and many other institutions have worked with the Centre for research and knowledge-sharing.

One of the residents of the Kargil Slum, Ms. Meenakshi Chand, a representative of the socioeconomic transformation process initiated by UMBC, had become a first generation entrepreneur for her family and was invited to present her success journey at a global conference at Deakin University, Melbourne, Australia on 25 October 2016.

UMBC has been awarded financial support from Government of India, Government of Odisha, Bhubaneswar Municipal Corporation, Government of Australia, Odisha Milk Marketing Federation (OMFED), Mindtree Foundation, Bosch, Union Bank among others.

Infrastructure and Equipments

Centurion University - Gram Tarang has the bestin-the-class infrastructure in all the streams of teaching. The areas of Allied Health, Renewable Energy, Augmented and Virtual Reality System, Agriculture, and Manufacturing, need special mention for for the latest conventional, nonconventional machines and additive manufacturing setup such as Fused Deposition Modelling setup (colloquially called 3D Printer) which enables the University to provide highend exposure and experience to its students across all streams of education. Some of the labs, equipment and machinery is shown in the pictures below:









Incubation Report 2022

Center for Innovators, Entrepreneurs and Commercializations (CIEC)

CIEC is an incubator for nano and micro enterprises. It leverages Centurion University's industry level production facilities/labs, 3D printing infrastructure, digital design lab and research outputs created by various research centres to encourage and nurture entrepreneurs. It also promotes entrepreneurship development among the students, faculty members, and the community around its Campuses. It also has a multi-seat co-working space that currently hosts eight ventures at various stages of their development.

CIEC is supported by Government of Odisha 'Start-up Odisha' program and a network of mentors. Under its aegis, Centurion University has partnered with FICCI-FLO (Federation of Indian Chambers of Commerce & Industry's women wing) for a specifically womenentrepreneurs targeted program in Odisha. This program is expected to nurture women entrepreneurs by connecting them with mentors as well as supporting them to gain access to capital and creating market linkages.



Centurion University and

CIEC

CIEC has built an ecosystem that encourages and supports students and faculty with their startups by offering co-working space, common facilities centers, state-of-the-art workshops and



Exoneration of incubation ecosystem

laboratories. The infrastructure combined with its unique model of education aims at inculcating a scientific temper among its students to encourage entrepreneurship through action and experiential learning. The success of this endeavour is proven through the several start-ups (led by students) on the Campus.



07

CIEC is a partner Incubation hub of Govt of Odisha Start-Up initiative through which it promotes entrepreneurship among students and other potential nano-mini-micro entrepreneurs. It assists start-ups at all stages towards becoming independent and productive.

Track Record in Promoting Start-ups, Innovations and Industry Tie-ups

The University nurtures cutting-edge research that translates to publications, patents, copyrights, innovations, and products. CIEC conducts events at regular intervals to identify talent among students and faculty members through hackathons, innovation fairs, and other events. The start-ups are nurtured not only by the mentor-faculty but also through continuous and sustained industry linkages and exposure.

Start-ups

CIEC has been established to provide, mentor and nurture young minds towards creating a thriving entrepreneurial ecosystem in the University. It is a recognized Incubator under the Start-up Odisha Initiative of the Government of Odisha, MSME Department and Start-up India. It has incubated 39 entrepreneurship entities till date the details of which are listed in Appendix I. CIEC promotes entrepreneurship by providing support in all possible spheres and stages of development, i.e., workspace support, mentoring support, technical support, market linkages, managerial and business support, projecting and actioning scale-up plan and so on. The first startup incubated at the University was on carpentry, which developed into a full-fledged Wood Engineering and Manufacturing Unit. Today the unit is self-sufficient and caters to clientele across the entire country. The variegated nature of start-ups incubated at Centurion University is shown below:





Range and domain of companies incubated

The start-ups are registered either as private limited or limited liability company. Among the most successful start-ups is the Transformer Manufacturing Unit, which caters the needs of Odisha Power Development Corporation, Government of Odisha. The Table on important client base of the companies exonerates five based incubated companies of the University.

The Paver Block Manufacturing Unit, transforms plastic waste into paver blocks. This start-up aims to help reducing the menace of the plastic waste. CIEC has hosted start-ups in multifarious domains owing to its technical competency in several areas.



Intake of research scholars YOY



Manifestation of learning process

the academic curriculum of the University is designed to promote and nurture innovators and entrepreneurs. One of such innovation is an ecofriendly paper-pen manufacturing machine,

which uses waste paper to make pens. The student innovators registered the company as "Likhan". Another company start-up by students is the Skyy Rider Automotive Pvt. Ltd. where three mechanical engineering graduates have designed and manufactured e-rickshaws. . One more example of innovation start-up is the work of a mechanical engineering graduate, who is

Name of start-up	Area	Important clients
GT- Transformer	Transformer manufacturing	Govt. of Odisha
Skyy Rider Automative, Pvt Ltd	E-Rickshaw, E- Vehicle	OMFED, Govt. of Karnataka, Centurion University, Bhubaneswar Municipal Corporation
Likhan Ecofriendly pen	Eco-friendly pens	Bhubaneswar market, to be listed in Amazon
Susmita enterprises	Apparel manufacturing	Market of Odisha and India
Centurion woodworks	Furniture manufacturing	Market of Odisha and India

Important client base of few incubated companies



working on 3D printing solutions for jewellers, architects, and medical professionals.

Industrial Linkages

The University's education model in based on hands-on knowledge, real-time experiencebased learning and practice-linked pedagogy to

build capacity, competency and ability in learners corresponding to the level of education and certification. YOY increase in the industry linkages in different area of engineering, technology, healthcare among others is shown in figure below. The industry collaborations have resulted in practical solutions to various problems through action research projects. The Regional Training Centres set up by Ashok Leyland, Hyundai, and Yamaha are some examples. Besides, industries like Dassault Systems have extended support by providing license-free 3D experience software. Wipro 3D supported the 3D printer setup and currently striving to manufacture a microgravity 3D printer to use in space. Some of the most active industrial partners and the area of collaborations are shown in Appendix I.



Industrial linkages YOY

Approach and Methodology Adopted for Incubation and Incubation Process

The University navigates the start-ups through its various phases, i.e., the idea phase, preincubation phase, incubation phase, and when



Delineation of incubation support provided

11

the start-up is mature enough, it also provides avenues to fly-off (self-sufficiecnt stage) as shown below:



Delineation of incubation support provided for early stage start-ups

The aim of CIEC is to handhold the transformation of ideas of its students and alumni to help them become successful Nano-Mini-Novo entrepreneurs. Centurion University endeavours to support the incubation of high-potential new ideas and drive them into tangible outcomes through its robust think-tank process.

Direct and indirect approaches

The University Campus at Bhubaneswar is flanked by institutions of national significance such as IIT Bhubaneswar, NISER, IISER and NIT. The University works on both the direct and indirect approaches to reach out to the students.

Direct approach: This involves interacting with students through various workshop-like events such as Transformation, Hack the University, Innovation fairs and Boot camps. These efforts evaluate the creativity of the interested students and put them on the path to entrepreneurship.

Hack the University

Hack the University is an event where a team of maximum three students will be offered the challenge to develop a product within a limited time frame. The product development needs to adhere to a theme in tandem to recent trends in the market and possess commercialization potential.





Benefits

Self-evaluation: Not all students are aware of their potential, and when tested, a sense of realization can take root in their minds. This process works as a trigger that establishes the first pillar of entrepreneurship.

Trickledown effect: The New Education Policy has opened several avenues. However, the concept of "education for service" is yet to be replaced by "education to service". This spirit can only be kindled when students are nurtured to recognise themselves and each other for their competence in innovations through such events.

Imagination and Innovation (I&I) fair

Unlike hackathons, imagination and innovation fairs help the students showcase their projects and innovative work through exhibitions. It provides the student a platform to exhibit their aptitude in technology and innovation.

Benefits

Connecting minds: Such fairs have huge potential for discovering the hidden talent in students through for the exhibited products and ideas.

Wantapreneur boot camp: the University's Wanta- preneur boot camp is a platform which takes the "wantapreneur" through the process required tobecome an entrepreneur.

Transformation

This is a competition for students in the area of transformational entrepreneurship navigated by

a network of Universities, i.e., Coventry University-UK, Deakin University - Australia, Tunku Abdul Rahman University College -Malaysia, and Centurion University. The last competition was focused on the State of Odisha to unite the students, their transformational ideas, and other strategic interest they had towards entrepreneurship.

The intent of these efforts is and shall remain to hone the latent talent of students and encourage and support them to become job creators rather than job consumers by aligning and sharing ideas, collaborating and co-creating value through entrepreneurship

Indirect approach

It is very important to create a spirit of scientific temper and an entrepreneurial mind-set among the students right from the beginning of their courses. This can be promoted through webinars/seminars, impact lecture series on several issues, success stories and the challenges great ideas had before becoming famous and successful. These impact lecture series are documented and disseminated through microblogging sites and other social media for the widest reach out

Both the direct and indirect approaches complement each other and are imperative for success.

Prototyping Facility

Start-ups incubated by CIEC in the University deal with several phases of development of products. One of the important phases is the prototype development as it is directly linked to, "Time to Market" of a new product. The University has invested a significant amount of time and funds in setting up the prototyping laboratories towards this end.

Conventional Prototyping

Conventional prototyping involves conventional machining practises to develop a prototype or product. The University is equipped with the best-in-class Computer Numerical Control (CNC) Machines, including 5-axis CNC



Delineation of prototyping facilities

machine and turn-mill centre by DGM Morri. the University is one of the very few universities in the country with such facilities.



Multi axes CNC machines

Virtual prototyping

It is often difficult to manufacture the prototypes in certain areas of application such as construction, building, mining excavation, etc. . In such cases, the best way to represent a product or visual is to develop a "virtual prototype". The technique for virtual prototyping requires 3D game art, graphics technology and Augmented and Virtual Reality. The University is equipped with licensed versions of Dassault 3D experience, Maya, Adobe illustrator and other AR/VR software for this purpose.



3D model of the University

Rapid prototyping

The limitation of virtual prototyping is the missing of the physical feel. Hence, the ideal way to quickly produce prototypes is by using rapid prototyping techniques. This technique, which is otherwise termed as "additive manufacturing", provides speed and higher accuracy than the conventional manufacturing process. The University is equipped with a versatile 3D printer which has the capability to print metals, polymers, ceramics, gels and LASER engraving for this aspect.



DMG MORI turn mill setup





3D printer and products



High end calibration machines

Calibration and testing facilities

Calibration and testing facility are important in product manufacturing. The aim of calibration is to minimise any measurement uncertainty by ensuring the accuracy of test equipment. For analytical balance to give accurate reading, the instrument must be calibrated. Calibration reduces errors that can get costly in the long run. The University is equipped with advanced testing machines like Universal Testing Machine (UTM), X-ray fluorescence (XRF) which are capable to do the all kinds of measurement with high precision and accuracy.

Besides these there are several testing equipments in the areas of Civil Engineering to aid the many start-ups like the Total Station, Scaled Models of Bridges, Culverts, Buildings and Digital Theodolite. Similarly, the Bosch state-of-the-art facility enables the automotive start-ups to understand the basics of wheel alignment, and complex automotive electrical.



Scanning electron microscope





Incubation Space

CIEC offers comprehensive all-round support for incubating companies. This includes incubation space with Wi-Fi, air conditioning,



17



Testing facility: Automobile and Total station

seminar and conference halls. This support has has played an important role in the work-cycle of the entrepreneurs towards launching their businesses and achieving success.

Special Focus

Women, Scheduled Caste, **Tribes and Physically** Challenged

The University pays special attention and puts in great efforts to support the differently-abled to become financially self-sufficient, and productive citizens of the country. The differently-abled, tribal and economically challenged girls are trained in the apparel

designing and manufacturing and are assisted and encouraged to become nano-micro-mini entrepreneurs.

Scheduled caste, tribe and women: Off 6,000+ students at the University about 980 are from the reserved category as shown in the Fig. below. There are more than 1,500 girls in different branches of studies and across all campuses. Centurion University endeavours to put in extra efforts to promote and nurture



Total number of students vs. Reserved category students

			Ac	tivity	time
				3 Year	s Incuba
Activities	Year 1				
	Qtr 1	Qtr2	Qtr3	Qtr4	Qtr 1
		es	tablis	In hmen	cuba it & i
Incubation space					
Meeting and Conference rooms			_		
Prototyping infrastructure D&D Rooms (Dies & Design, FAB lab).					
			lı ar	icuba id gro	ting uth
Start-up to be incubated					
Website creation and regular updation					
Investment seelc VCF and Angel investor					
Promoting start up valuation through IP					
Inducting PhD students in relevant area					
Graduating Period					

Action plan: Next three years

entrepreneurship among these categories. The University's curriculum integrates entrepreneurial aspects from the beginning of their studies. In order to harness their potential a special and exclusive orientation program is conducted for them in the form of a boot camp. Similar orientation programs are carried out in external institutions.

Incubation Report 2022

eline chart tion plan Year 3 Year 2 Qtr2 Qtr3 Qtr4 Qtr 1 Qtr2 Qtr3 Qtr4 tion infrastructures Start-up potential:

Aim: To incubate a hundred start-ups in a timeline of 3 years from 2022 to 2025 with special focus on women entrepreneurs. The initial target is to enable the following 15 startups (as shown in Appendix I) to a fly-off stage in next 3 years.

Case Studies: Student Entrepreneurs

Likhan

Students from Vocational Education and Training had endeavoured manufacturing of ecofriendly paper-made pens. Their tireless efforts resulted in the establishment of a limited liability company, "Likhan", which is incubated as a start-up by CIEC in the year 2018.





Centurion Machtech

The Students from Mechanical Engineering attempted to manufacture a prototype of the product as their final year project. (It finally resulted as an LLP company named, "Centurion Mactech". It was incubated by CIEC in the year 2018.

Centurion Transformers

One of the most successful of the start-ups, this is the brainchild of the BTech students from Electrical Engineering who endeavoured the manufacturing of Transformer as their final year project. Their efforts yielded in registering their own company "Centurion Transformers", which was incubated as a start-up by CIEC in the year 2017.



Blockchain

One of Diploma Engineering students from Mechanical Engineering had developed interest in advanced technologies. His effort to understand the Blockchain technology culminated into the establishment of a company named, "Mittiland" which was incubated by CIEC in the year 2021.



University and clean energy: Skyy Rider electric mobility solutions

Skyy Rider

The BTech students from Mechanical Engineering had worked on the manufacturing of Electric Vehicles as their final year project. Their efforts culminated in registering their own company, "Skyy Rider", which is incubated as a start-up by CIEC in the year 2017.

Women Entrepreneurs

The WEC was established as a part of CIEC for engaging women in economic activity for the overall economic growth of Odisha. Women who have the time and ability to run businesses are often held back by poor facilitation. Other obstacles are lack of awareness of schemes, design, and marketing. More active interventions are needed to ensure ease of doing business.

Sangam Designs

This is a women led start-up which uses the latest textile technology to transform waste/discarded clothes to high-quality, best-in-the-class handwoven products. It mostly employs differentlyabled girls who are up-skilled by University's social entrepreneurial outreach entity: Gram Tarang. Besides being a successful start-up, Sangam Designs is an excellent example of women empowerment where differently-abled, destitute women, become financially selfsufficient and contribute to the society.

Evart Ltd.

This is another women-led start-up in innovations in Renewable Energy. This involves the transformation of old bicycles to refurbished ones with solar panels as a driving energy. The concept works on the line of the Waste-To-Wealth approach and endeavours to contribute to the Sustainable Development Goals (SDG 7).







Susmita Enterprises

This start-up is an all-women employee in the area of textile technology.

SDGs and Growth of Entrepreneurship

In a call to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030, the United Nations adopted SDGs in 2015. Also known as the Global Goals, there are 17 SDGs which are integrated and action in any one area may impact the outcomes in the others. The SDGs are designed to end poverty, hunger, AIDS, discrimination against women and girls,











23

and acknowledges that development must balance social, economic and environmental sustainability. Technology, knowledge transfer, creativity and financial resources from all aspects of society, as well as collaboration between developed and under-developed nations, is necessary to achieve the successful fruition of the SDGs in every context.



Area wise research income from industry

The University's research centres apply intense

efforts in action research in cutting edge areas

and does technology transfer to different

industries in the areas of STEM, medicine and

arts and humanities.

University is committed to sustainability since its inception. Its efforts has resulted in an overall rank in the band of 600-800 in the TIMES Impact ranking 2022. The SDGs, the University has endeavoured are 1, 2, 3, 4, 5, 9, 14, 15 and 17.

One of such endeavour is its commitment to Industry, innovation and infrastructure (SDG 9).



Towards Atmanirbharta: Hon'ble Prime Minister's Make in India Initiative

Sequencing viraling - scaling self-reliance - the clarion call of the Hon'ble Prime Minister for "Atma Nirbhar Bharat" - self-reliant India which emanates from Gandhiji's principle of selfreliant and self-sufficient village. Self-reliance can be accomplished if ideation to execution to commercialization is instigated, inspired and instilled in the University's eco-system.

The mandate of the University has been and shall be self-reliance in whatever form it is possible. A



25

few of the entrepreneurial interventions as part of the Atma Nirbhar of self-reliance are as follows:

1. Made in Centurion 1MVA (1000 KVA) transformer designed, developed, fabricated, manufactured, tested, certified and installed by the Team Centurion. The entire project from need assessment to the completion has been competed in 45 days.

- 2. Since the Campus has no soil and the contour is of laterite stone the entire food waste is processed and converted into manure, which is used as soil nutrient and for rejuvenation of Mother Earth in the Campus. The University often supports the surrounding communities with the converted manure.
- 3. The waste-water treatment facility designed, developed, and made functional by the Team Centurion is led by an alumni employee of the University. The Team is ready to supply solutions to the market on demand.



- 4. Another alumni employee has designed and fabricated coffee vending machine along with the coffee mix, which is used in the Campus and sold to the Institutional consumer.
- 5. The importance of contribution of primary sector activities in the economy and GDP of India is realised by the University. Owing to the same it has endeavoured to harbinger fullfledged units of: dairy, mushroom production, apiculture and others through students of agricultural studies.





6. The disease burden in our country is faltering the demographic dividend. There are cases wherein young aged population are turning diabetic. The research centre of the School of Agriculture has yielded a special type of rice named "DiaFit", which is low in glucagon and hence, suitable for diabetes patients as well as for prevention of diabetes.









- 7. Centurion Woodworks, a registered start-up caters to need of University's wooden furnishing requirements.
- 8. Almost all the daily essentials of the University are produced within the campus. A few of the examples to cite here are apparel, paper, chalk, cleaning products like sanitiser, phenyl and many others.





Social Enterprise: A Global Outlook

The University's endeavour to support marginalized communities in rural and remote areas is acclaimed by the British Council in the year 2018.

Social enterprise and employability

Institution

Centurion University of Technology and Management. India.

Gram Tarang has various social enterprises under its overall banner and delivers social enterprise on a large scale. One of these is the Employability Training Service Overview which provides socio-economically disadvantaged rural A multi-sector, private state university located in Odisha, youth in India with placement opportunities for skill building Eastern State, Established in 2005, with a current student and vocational education. They collaborate with multiple population of 15.000 to 20.000 enrolled for higher education government and industry partners to provide young people and 17.000 students for short-term training through its with training and work placements in order to improve their social enterprise. Gram Tarang employment and life prospects. More than 70,000 young people have been trained through this service to date, with 78 per cent of these now in gainful employment Approach to social enterprise that would otherwise have been unattainable for them.

The University was set up to support marginalised communities in rural and remote areas, and they work with social enterprises to address local, regional, and national needs. Social enterprise is incorporated across Centurion's curriculum and extracurricular activities

Incubator facilities

Centurion University created a 'livelihood incubator' in 2012 - the Urban Micro Business Centre (UMBC). Rather than insulate it within the university campus. they made the unique decision to locate the centre alongside one of the largest slum clusters in Bhubaneswar. The UMBC is a place where management, engineering students and faculty within the university work together entrepreneurial based solutions to urban poverty and urban development.

Incubation Report 2022

29

Placement opportunities

Financial inclusion

Gram Tarang Inclusive Development Services is a social enterprise promoting financial inclusion in rural areas. With the support of various banks and technology partners. the enterprise elects and trains Business Correspondent Agents (BCAs) in rural villages. They provide them with laptops, smart card readers and other banking technology, enabling them to run their own local banking system with access to loans, savings accounts and other transactions. To date, more than 6,000 BCAs have been trained, bringing local banking to more than three million rural households.

Appendix-I

The details of Incubatees in the University

Sl.	Nomo of Incubatos	Area of Focus	SPOCs		
No.	Maine of Incubates	Area or Focus	Email ID	Contact	
1	Centurion Fab	Product Innovation	partha@cutm.ac.in	9937033338	
2	Centurion Woodworks	Product Innovation	partha@cutm.ac.in	9937033338	
3	Centurion MechTech	Product Innovation	subratkumar.swain@gramtarang.org.in	7008321742	
4	Gram Tarang Garments	Textile	sumankumar@cutm.ac.in	8280238679	
5	Centurion Gram Sanjeevani	Medicine	debasish.panda@gramtarang.org.in	9007890777	
6	Futurator India Pvt Ltd	Product Innovation	sumankumar@cutm.ac.in	8280238679	
7	Jivada Ventures	Service Innovation	dharitri.patnaik@gmail.com	9583010940	
8	RR Agro	Product Innovation	venkatsai.bali@gmail.com	9777266789	
9	Sangam Designs	Product Innovation	sangamdesigns1@gmail.com	7735611564	
10	Skyy Rider Electric Pvt Ltd	E-vechicle	nihar@skyrider.com	9348287665	
11	VRAM Studios	Technological Innovation	debasish.mohanty@cutm.ac.in		
12	Vastalya Wellness	Heallth and Wellness	paritosh.iipmb@gmail.com	8340595365	
13	Gram Tarang Inclusive Development Services Pvt. Ltd. (GTIDS)	Financial Inclusion	abhinav.madan@gramtarang.org.in	9437179990	
14	Gram Tarang Foods (GTF)	Organic extracts			
15	Urban Micro-Business Center (UMBC)	Women Entrepreneurial	subrat.dash@cutm.ac.in	9437260856	
16	Gram Tarang Technologies Pvt. Ltd. (GT Tech)	Technological Innovation	abhinav.madan@gramtarang.org.in	9437179990	
17	Blockcation Pvt. Ltd.	Technological Innovation: Blockchain	sidd.blockchain@gmail.com	9431571346	
18	eVArt	Technological Innovation	smitanjalirout19@gmail.com	7008175941	
19	Gram Tarang Technical Vocational Training Servises Pvt. Ltd. (GTVET)	Education and Training	abhinav.madan@gramtarang.org.in	9437179990	
20	Skyy Rider Automative Pvt Ltd	Product Innovation: Automobile	nihar@skyrider.com	9348287665	
21	Centurion Renewables	Energy	durgaprasad@cutm.ac.in	9437618075	
22	Centurion Dairy	Dairy products	durgaprasad@cutm.ac.in	9437618075	
23	Centurion Compost	Vermicomposting	durgaprasad@cutm.ac.in	9437618075	
24	Centurion Mush	Agriculture	durgaprasad@cutm.ac.in	9437618075	
25	Centurion Seeds	Agriculture	durgaprasad@cutm.ac.in	9437618075	
26	Centurion Green Feeds	Agriculture	gaikwad@cutm.ac.in	8093524042	

SI.	Nome of Insubstag	Area of Fame	SPOCs	
No. Name of mediates		Area of Focus	Email ID	Contact
27	Gram Tarang Transformers	Product Innovation	ashutosh.jena@gramtarang.org.in	9437121115
28	Centurion Pavers	Product Innovation	subhendra.baliyarsingh@cutm.ac.in	7008493724
29	Centurion Coffee Connect	Services	soumit.ukil@cutm.ac.in	6372804180
30	Susmita Enterprises	Textile	pallavi.pm@gmail.com	
31	Centurion Crafts	Product Innovation	satish.mandal@gramtarang.org.in	8637221299
32	Centurion Repairs	Services	jamaluddin@cutm.ac.in	8917439798
33	Centurion Wonderwood	Product Innovation	drahulrao.adi@gmail.com	8249122107
34	Centurion VR	Technological Innovation	abhi.mitra@cutm.ac.in	7980325373
35	LIKHAN Ecowriting Pvt Ltd	Product Innovation	jamaluddin@cutm.ac.in	8917439798
36	Hids Technology Pvt. Ltd	Technological Innovation	santosh.panda@hids.co.in	7750013307
37	Susmita Enterprisers	Technological Innovation	pallavi.pm@gmail.com	8249891113
38	Odesi Handlooms and Handicrafts	Product Innovation	odesihandloom@gmail.com	7008929294
39	Aussie Fashions	Textile	partha@cutm.ac.in	9937033338

Details of Industry Collaboration

Name of the Industry	Year of Collaboration	Area of Collaboration
Odisha State Seeds Corporation Ltd.	2021	For Production & Supply of Seeds to OSSC
Apollo Hospitals Enterprise Ltd. Hospital, BBSR	2021	For Building institutional collaboration towards clinical teaching, practical training, faculty development internship training and placement SoPAHS Students
National Mineral Development Corportion (NMDC)	2021	For Skill development programme training Programme
Indian Institute of Vegetable Research (ICAR-IIVR)	2021	For facilitating Students Training, Internship/Post Graduate & Ph.D. Research/Scientists Exposure & Involvement
Prolife Diagnostics, Bhubaneswar	2021	For Building institutional collaboration towards clinical teaching, practical training, faculty development internship training and placement SoPAHS Students
Viswass Group Institutes, Bhubaneswar	2021	For implementation of project named " Building institutional collaboration towards organizing of Health Camps and Clinical pathological laboratory services
Wipro	2020	Collaborative projects with funding from strategic sectors and ministries
Eye-Q Vision Private Ltd.	2020	For Building institutional collaboration toward clinical teaching, practical training, faculty development internship training and placement SoPAHS Students

Incubation Report 2022 **31**

Name of the Industry	Year of Collaboration	Area of Collaboration
Mednutra Pvt. Ltd.	2020	
IFFCO Kisan , New - Delhi	2020	Farm Technologies Development
Hankaranarayana Life Sciences Llp, Bengaluru (Sn Life Sciences)	2020	Encourage and facilitate cooperation in the fields of Biotechnology, Agriculture, Ag Engg., Microbiology and Food Sciences
Bosch's India Foundation	2019	For Industry-Academia Collaboration towards Skill Development
ECOS Eye Hospital, Berhampur, Odisha	2019	For Building institutional collaboration toward clinical teaching, practical training, faculty development internship training, and placement SoPAHS Students
Central Tuber Crops Research Institute (CTCRI)	2019	For facilitating Students Training, Internship/Post Graduate & Ph.D. Research/Scientists Exposure & Involvement
Horticulture Research Station	2019	For facilitating Students Training, Internship/Post Graduate & Ph.D. Research/Scientists Exposure & Involvement
Dassault systems	2015	Provides Academic Certification Partner Program; Encourage the faculty in their educational institutions to be well averse with Dassault Systems 3D Experience Platform
Schneider Electric India	2015	To open vocational training centre and entrepreneur development training to underprivileged school and college dropout youth in the field of electricity through training partners
TAFE Western	2015	Jointly plan deliver and evaluate vocational training in India. Build capacity of CUTM students to compete in the global World skills Competition, Provide certification of part or full Australian Qualifications Framework (AQF) for Indian vocational students
NSDC	2014	Introducing Skill-Based Training in Colleges/Institutes of CUTM as part of the Undergraduate and postgraduate programmes

Next three years action plan: Targeted 15 companies

Sl. No.	Name of the Entity	Company Registration No.	Registration Date
1	Centurion Fab	SRN M15996390	14-09-2020
2	Centurion Wood Works	SRN M16783300	16-10-2020
3	Gram Tarang Garments	SRN M16807992	13-10-2020
4	Centurion MachTech	SRN M16863920	21-10-2020
5	Centurion Gram Sanjeevani	SRN M17235185	26-11-2-2020
6	Sangam Designs LLP	AAR-5155	06-01-2020
7	Odesi Handlooms and Handicrafts Private Limited	U17299OR2019PTC031922	25-11-2019
8	Skyy Rider Electric Pvt. Ltd.	U34100OR2020PTC034758	10-11-2020
9	Vatsalya Wellness Pvt. Ltd.	U17290BR2021PTC051853	29-04-2021
10	Hids Technology Pvt. Ltd	U34100OR2020PTC033613	31-07-2020
11	Gram Tarang Technical Vocational Training Servises Pvt. Ltd. (GTVET)	U80902OR2020PTC034184	17-09-2020
12	eVArt LLP	AAZ-0026	13-10-2021
13	Bivabari Fashions pvt ltd	U18109OR2019PTC030972	03-05-2019
14	Skyy Rider Automotive Pvt Ltd.	U80904OR2018PTC028377	22-02-2018
15	Scottish Cafe Pvt. Ltd.	U92490OR2021PTC038456	16-12-2021

Appendix-II

Excerpt of Incubatees Endeavours



Antique Table Pine based working table with antique feel







GT Labs (An abstract design tables for students & executive inside a labi



Display Showcase Abstract design modular showcase for books and gadgets.

Dining Table Condictable & classy look dring table with six sealer capacity made off pine wood, furnished with PU coaling

Incubation Report 2022 33



Podium Specially designed podium with the logo of Masjid e Hasar





Memento Stand Daulgrand for heiding photo frame, manyanto & use for disp





Teracotta Elephant







Ceramic Flower Pot



Ceramic Dinner Set



Ceramic Sculpture



HDPE Laminated Roll Production



Spinning of Threads



Knitting Fabric Production







250 KVA Transformer 500 KVA Transformer





Laminated Cores

Assembled Cores Core Coil Assembly



Trimmer Die

Flange Model



Incubation Report 2022 35



63 KVA Transformer

100 KVA Transformer



HV Coil



LV Coil



Inside View of Power Transformers











1225 L





PCD Fixture



Filter Element







E-Vehicle Learning Lab



E-Loader Golf Car







E-Passenger Vehicle

E-Passenger Vehicle

E-Diagnosis Kit

Back Inner



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