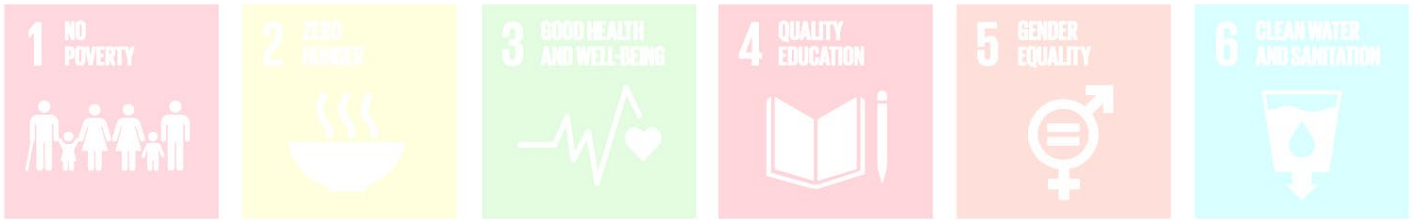




Shaping Lives and Empowering Communities



SUSTAINABILITY REPORT



2019-2020



FOREWORD



I consider myself and all my fellow citizens of the world as ecological criminals for not performing the duties of a responsible creations of God. Mother Nature and the Universe have provided enough for the needs of all living beings, including the human race. However, our insatiable and indomitable greed has resulted plundering and splurging the Nature to the hilt and we have not evolved to discern and decide when to say, ‘enough is enough’. All of us have taken Mother Nature for granted. Mother Nature and the Universe is now reacting with violence. The human race needs to act faster, must do and deliver better than what we have been doing for promising to protect, preserve and nurture Mother Nature and the environment.

Sustainable Development Goals (SDG) of the United Nations is probably the most prominent charter ever pronounced for the purpose and there is acceptance by all member countries. SDG is not just a goal. Sustainability is the way of life. I have the belief and conviction that all education institutes, especially universities, are the fulcrum to shape and redirect young minds and future citizens to acknowledge, appreciate and accept sustainability challenges, act to redefine and reverse the human casualness and carelessness towards Mother Nature. Centurion University is absolutely conscious of the challenge and continuously engages with students, teachers, staff and communities as part of its tiny contribution to plough back more or at least equal of whatever it consumes. The SDG remains the ‘Core and Conviction’ of the University. Every activity Centurion University undertakes, it strives to assess the ecological cost and ensure sustainability. It is our social, moral and institutional obligation to ensure sustainability to the community within which it exists. We have been and shall continue to define our DNA to have absolute commitment to SDG. The enthusiasm, exuberance and excitement in the University towards sustainability is highly visible and to a large extent, quantifiable. However, as Head of the University, I intend to navigate sustainability as “institutional indulgence’ for all its members. Each one of us needs to reiterate his commitment to himself at regular intervals, i.e., to have SDG as “Mission Possible”, take pride in it and feel privileged to have contributed to the SDG in every way possible.

Every one of us has to learn to quantify his/ her existential impact in the Universe and act as a change agent to restore, rejuvenate and resurrect Mother Earth and its ecology to be “sustainability surplus” instead of “sustainability deficit”. The road ahead is littered with visible and invisible challenges, but the Team Centurion has the clarity, conviction, commitment and confidence to be a reference point to adopt and adapt the Sustainable Development Goals.

Prof. Mukti Kanta Mishra

President, CUTM

Sustainable Society

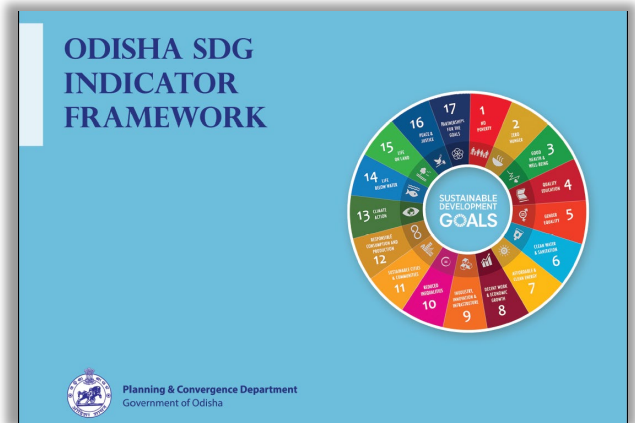
The sustainable society calls for satisfaction of all sections of human population with an assurance of continuity for future generations. The satisfaction materializes through resonant economic, social and environmental development. To create the resonance, the United Nations defined seventeen sustainable development goals, namely, (1) No poverty (2) Zero hunger (3) Good health and well-being (4) Quality education (5) Gender Equality (6) Clean water and sanitation (7) Affordable and clean energy (8) Decent work and economic growth (9) Industry, innovation and infrastructure (10) Reduced inequalities (11) Sustainable cities and communities (12) Responsible consumption and production (13) Climate action (14) Life below water (15) Life on land (16) Peace, justice and strong institutions (17) Partnerships for the goals. The percolation of each goal through each other is the key to resonant development. For prolific percolation, each individual needs to be aware of sustainability, corresponding practices and choices. The Government, industry and educational institutes are three important pillars responsible for individual awareness for sustainable society. They need to proceed collectively to achieve the goals.



Sustainability challenges in Odisha

The state of Odisha, located on the Eastern Coast of India, enjoys a 485 kms coastline, large forest cover and several mineral resources (28% iron ore, 24% coal, 59% bauxite and 98% chromite) of India's total deposits. As per 2019-20 (AE), the contributors to Odisha's Gross Value Added (GVA) are Service sector (40.51%), Industry sector (39.60%) followed by Agriculture and Allied sector (19.90%). The Trade and Repair sectors are the major contributors to the service sector output in the State and grew at an average rate of 7.9%. The GVA of manufacturing sector in Odisha is constant at 39.6% since 2011-12. The 'Make in Odisha' initiative by Government of Odisha, is a great opportunity for the manufacturing sector to grow in the state. According to the Centre for Monitoring Indian Economy (CMIE), the state has emerged as a leader in the country to attract investments during the period April to September 2019. Consequently, the future workforce for manufacturing sector is required to be trained. The share of cropped area under vegetables, fruits, oil seeds, pulses has increased to 43.79% in 2018-19 (Government of Odisha, 2020). However, the agricultural production has decreased due to severe cyclones. This, in turn, it decreased the

Gross State Domestic Product for the year 2019-2020. Thus, focus on developing appropriate agricultural techniques and crop modification is very important. Odisha has the third largest population of Scheduled Tribes (23% of the state population comprises of 62 tribal communities) in the country. The Woman and Child nutrition is a major public health challenge to which the State Government has accorded priority. In order to ensure more effective, inclusive and participatory tribal development, government has set up Special Development Council in 9 tribal high concentration districts. The gender parity index indicates that the state is well on the path to achieving gender equality: 0.93, 0.92 and 1.01 for primary, upper primary and secondary education, respectively, in 2017-18 (Government of Odisha, 2020). However, the Gross Enrolment Ratio for Higher Education in Odisha is extremely low (15%). Thus, higher education enrolment needs appropriate attention from Government in partnership with higher education institution. Moreover, the research and innovation initiatives need significant investment and support by the government. The New Education Policy of India sets out a roadmap for the support of Government to various initiatives such as establishing a Research Council, having a single regulatory authority to facilitate better governance, and a focus on skills. The Government of Odisha is committed to overcome the deficiencies and increase the economic growth. The purpose is being achieved through various schemes that, also, fulfils the various goals of Sustainable Development defined by United Nations (Odisha SDG Indicator Framework).



Centurion University stride towards Sustainability



The Centurion University of Technology and Management (CUTM) in the state of Odisha, India, is empowering the young minds towards sustainability practices through various initiatives cooperatively with various governments and industries. The CUTM is established in 2007 on the ashes of a failed Engineering College, the Jagannath Institute of Technology and Management (JITM) in Gajapati district of Odisha. Today CUTM has, mainly, five campuses spread across Odisha to provide the support to the sustainability dreams. In 2010, the Centurion University Act was passed by the Odisha Legislative Assembly with campuses in Gajapati district and Khurda district. The campuses of

Bolangir, Rayagada and Chatrapur were notified by Government of Odisha in 2017.

Six Campuses across ODISHA & ANDHRA PRADESH



FOCUS:

- Equalizing Inequality
- Youth, Women & Tribe Empowerment
- Care for Underprivileged Community
- Care for Ecology and Environment

PATHWAY:

Collaboration & Partnership with

- Govt. of India
- Govt. of Odisha
- Govt. of Andhra Pradesh
- Industries
- NGOs & Self-Help Groups
- International Universities
- International Institutions
- National Agencies
- Local & Regional Communities

The CUTM has five verticals for empowering youth, women, disadvantaged and underprivileged community. The students from tribal and extremist area are trained for employability. They are focused on knowledge economy, employability, and entrepreneurship through following support:

- Technical skill building
- Entrepreneurship development training
- Product based training
- Handholding for Entrepreneurship development
- Business launch training
- Employability training and placement
- Skill development
- Vocational training
- Financial services to the unbanked in rural areas across country.
- Community need based financial services

SOCIAL OUTREACH VERTICALS OF CENTURION UNIVERSITY



Given the resonating endeavours of CUTM with the United Nation's Sustainable Development Goals (SDGs), the application for Times Higher Education University Impact Rankings is based on 9 out of 17 SDGs. Our sustainability report 2019-2020 presents the impact of 8 out of applied 9 SDGs (except SDG 9).





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<https://cutm.ac.in/sustainability/sdg/>

Empowering low-income group students



With the intention of mobilizing youth from the rural/urban areas for training, sustainable employability/employment and entrepreneurship, the **Gram Tarang Employability Training Services** was established. This vertical of Centurion University of Technology and Management empowers youth from **marginalized and disadvantaged regions (especially from left wing extremist affected areas) of India**, with the skills needed to ensure employability.

Students:

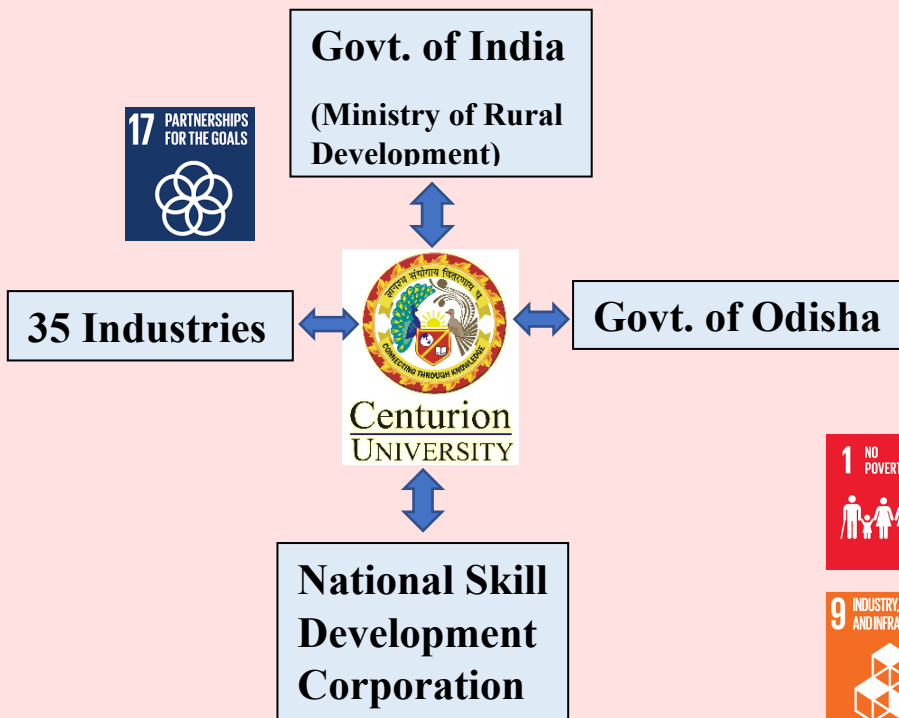
70%: Economically poor

60%: Scheduled caste/Scheduled Tribe

50%: Women



- 55 skill courses across 12 sectors.
- Youths trained > 60,000.



OUTCOME:

- 70% Placement
- Production units:
 - Tools
 - Auto components
- Manufacturing Units
 - Garments
 - Transformers
 - Furnitures
- Start-ups
 - Mushroom
 - Seed
 - Vermicompost
 - Dairy Unit



<https://gramtarang.org.in/>

Scholarships for under-privileged community students

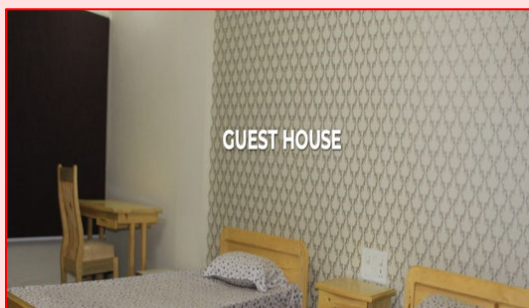
As a part of the university policies, we have various initiatives where we as a continuous, targeted and coordinated approach to helping poor backward sections like ST, SC, OBC, women and minorities students to graduate. They are as below-

Sl. No	Name of the Scholarships	Link on the website
1.	E. Medhabruti Scholarship Department of Higher Education (DHE) Odisha	https://cutm.ac.in/admission/scholarship/
2.	PRERANA Post Matric Scholarship for SC/ST/OBC & SEBC District welfare Office Odisha.	https://cutm.ac.in/admission/scholarship/
3.	Minority scholarship from District welfare Office Odisha.	https://cutm.ac.in/admission/scholarship/
4.	National Scholarship	https://cutm.ac.in/admission/scholarship/
5.	Jindal Foundation Scholarship (Sitaram Jindal)	https://cutm.ac.in/admission/scholarship/
6.	Times of India Scholarship	https://cutm.ac.in/admission/scholarship/
7.	Ministry of Human Development (DHE) New Delhi	https://cutm.ac.in/admission/scholarship/
8.	Bihar Welfare (Post-Matric) SC/ST/OBC & Minority	https://cutm.ac.in/admission/scholarship/
9.	BEML Scholarship (SC & ST)	https://cutm.ac.in/admission/scholarship/
10.	FAEA Scholarship (SC & ST)	https://cutm.ac.in/admission/scholarship/
11.	Bihar Welfare (Technical Stipend)	https://cutm.ac.in/admission/scholarship/
12.	E_KALYAN Scholarship offered by Jharkhand State Welfare Department	https://cutm.ac.in/admission/scholarship/
13.	Departmental/Official scholarship from East Coast Railway /CRPF / Central Schools / SBI / Coal India / Daitari Mines /OMC for their wards those who are studying Engineering / MBA	https://cutm.ac.in/admission/scholarship/
14.	Bihar Students Credit Card Scheme	https://cutm.ac.in/admission/scholarship/

Life at Centurion Campus

CUTM has all amenities, that are necessary for a comfortable living inside the campus. Most important ones are enumerated as follows:

- *Health Center*
- *Ambulance*
- *Swimming Pool,*
- *Gymnasium facilities,*
- *Canteen,*
- *Basket-ball,*
- *Tennis and*
- *Cricket ground,*
- *Different clubs like acting, dancing, poetry and etc. clubs*
- *Retail shops*
- *Laundry services*
- *WIFI 24*7*
- *Central Library*
- *Hostel Libraries*
- *Banking and postal services*
- *ATM facility*



<https://cutm.ac.in/campus-facilities/campus-facilities/>



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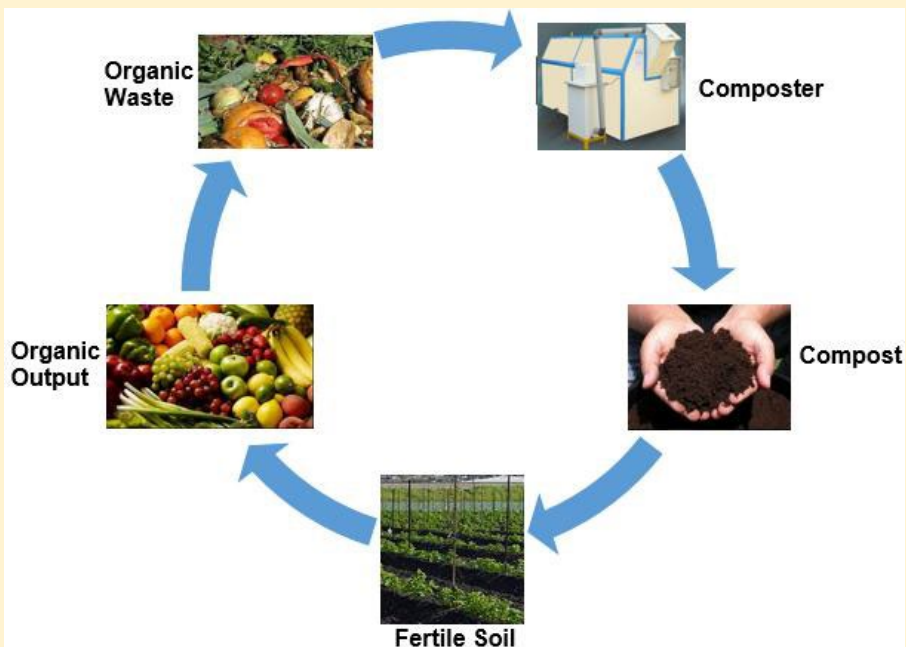
<https://cutm.ac.in/sustainability/sdg/>

Waste To Wealth

Conversion of Waste Food into Compost

The University is converting food waste into natural compost. It has installed two food digesters units within the campus which together can handle 700 kg of food waste per day. The advantages are:

- Reducing the cost of buying additional fertilizers.
- Retaining soil moisture.
- The amount of water spent on irrigation is less.
- The nutrients from compost are not easily washed away by rainfall.
- Reducing the emission of harmful Green House Gases which cause global warming.



Web Link: <https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/sdg/pdf/Waste-to-Wealth&catID=315>

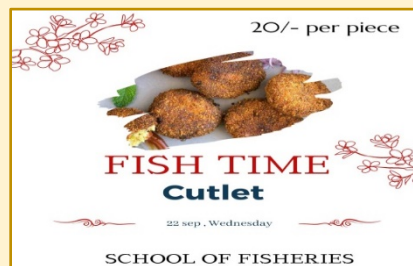
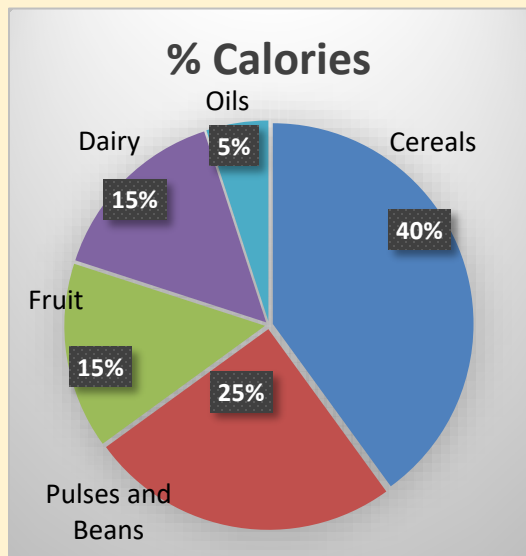
Sustainable food choices for all on campus

The raw materials used in the cooking and preparation of meals:

- RNR rice is organically cultivated.
- Vegetables used are collected from the local farmers who use minimal pesticides.
- University has its own mushroom unit, dairy farm, large mango orchards, numerous coconut trees, pineapple plantation, protected cultivation of some fruits.
<https://www.youtube.com/watch?v=oKU9MM4-0Gw>
- CUTM Bakery. <https://www.youtube.com/watch?v=pHEOufBpkJU>
- CUTM AC restaurant.
- University also organizes small food fests.



Menu of the mess includes a balanced diet



Web Link: <https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/sdg/pdf/Dairy-Unit&catID=315>

<https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/sdg/pdf/RNR-Rice&catID=315>

<https://www.youtube.com/watch?v=2oInwIIWdEk>

Capability Building in Agriculture Sector

Centurion University of Technology and Management, Gajapati, Odisha, has contributed to improving the quality of life of the farmers. Under the Innovation Agriculture Project, it has trained farmers from vulnerable groups such as scheduled caste, scheduled tribe, other backward classes and Women for job roles such as Vermicompost, Mushroom and Organic Agriculture. The partnership with Hamara Bachpan and RWI Hansapada helped in providing quality training to the farmers. In the future, the program will be extended in terms of providing skill training on more job roles such as Chili cultivation, Maize cultivation and Pulse cultivation.

Web Link: <https://cutm.ac.in/schools/ms-swaminathan-school-of-agriculture/>





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<https://cutm.ac.in/sustainability/sdg/>

Community Diagnostic Centre (CDC)

Centurion University of Technology and Management is committed to fulfilling its motto of “Shaping lives and empowering communities” by reaching out to the poorest of the poor. It has campuses located in tribal areas where poverty and diseases abound. Taking cognizance of the situation, Community Diagnostic Centre (CDC) was established in 2019 that served the local community. With the onset of the COVID-19 pandemic, the predicament of poverty was further accelerated with job losses that sky-rocketed out-of-pocket medical expenditure. In response, the University established a COVID-19 hospital on its premises which was operated by the government. At the same time, CDC played a cardinal role in extending its support to the government by providing services for testing and deputing pharmacists to nearby health centres. It also deputed paramedic staff to the COVID-19 hospitals. The university created the COVID-19 helpline for providing real-time status to local residents.

CDC further aims to promote healthy practices among the community as being committed to sustainable development goal 3. It conducts health awareness campaigns and outreach health camps for the local community. It conducts a mass vaccination campaign (for COVID-19) at the centre for its students and the community. The community is benefitted from the state-of-the-art infrastructure in pathology, physiotherapy, optometry, radiology and emergency services.



The details of CDC and its ventures are available at <http://research.cutm.ac.in/courses/center-for-medical-diagnostics/>

Health Camps and Awareness Programs

Being committed to SDG 3, SoPAHS along with CDC regularly organises health camps with an aim to create awareness on quality health to the habitats in the nearby localities. One such camp was held at VISWASS Nursing College, Khordha in 2019. This camp was organized to provide **vision care services** to students and staff of VISWASS Nursing College and the local villagers attending the out-patient department. Another camp was held at Janla Panchayat in 2019, which provided the following services: **free health check-up, pathological diagnoses, vision screening and distribution of required medicines**. Similarly, a **free diabetic health camp and a free dental check-up camp** were organized. Diabetic patients were screened and provided treatment. Their oral hygiene requirements were also assessed.

The ‘Culture Sports Responsibility’ club of the University in the year 2021 conducted several awareness campaigns in the form of street plays, flash mobs, marches and displays. One such series of **Street Plays** was under the theme “**COVID-19: The Pandemic**” with a motto to create awareness among the students regarding COVID.

It became imperative for physical classrooms to transform into online classes during the COVID pandemic. Needless to say, the health of the students, particularly the eyes were affected due to prolonged exposure to computers and mobile phones screen. Owing to the same, events such as **awareness and demonstration of Ocular exercise** were organized in the year 2021.



Extension of Sports facilities to the local community

The university endeavours to connect through knowledge and action. The university believes in equal opportunity and is spreading the message of physical fitness to the community by enabling accessibility of its facilities to them. Its sports facility is open to everyone with a formal registration which is mostly free or highly subsidised. In this regard, the University also conducts inter-panchayat cricket and volleyball matches.



Basketball and Volleyball

The well-maintained basketball and volleyball areas are used extensively by students and the local community. In order to strike a balance and provide equal opportunity women participants are always encouraged to utilise the sports facility.



Cricket

The cricket ground facility (<https://cutm.ac.in/campus-facilities-details/cricket-ground/>) is extended to Odisha Cricket Association (OCA) where financially deprived youths are trained in cricket. Increasingly the cricket pitch is used for inter-University, inter-state and league matches.





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<https://cutm.ac.in/sustainability/sdg/>

Lectures and Courses offered to disadvantaged communities

Lectures

All the University courses are freely accessible to the public through University's open resource (<http://courseware.cutm.ac.in/>). The access to lectures is open to external students in a variegated approach. For example, there are some courses which are offered in collaboration with the government for the local communities. There are other specific tailor-made training programs that are offered to communities of scheduled castes and tribes.



Courses

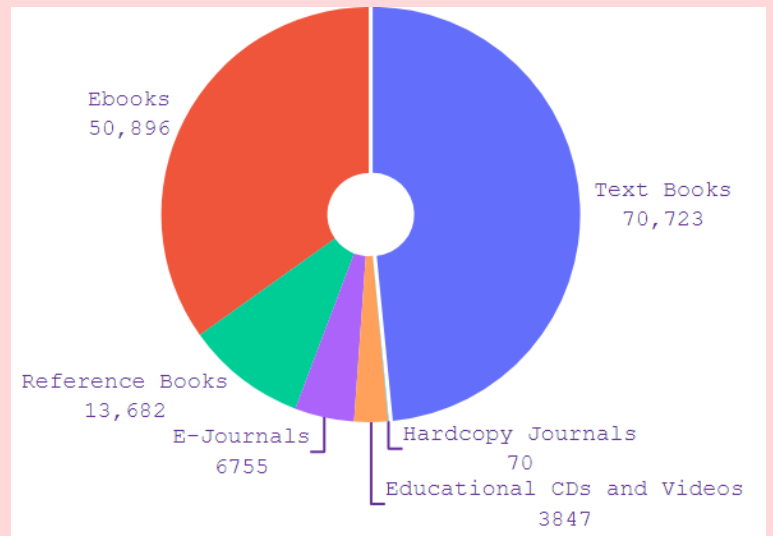
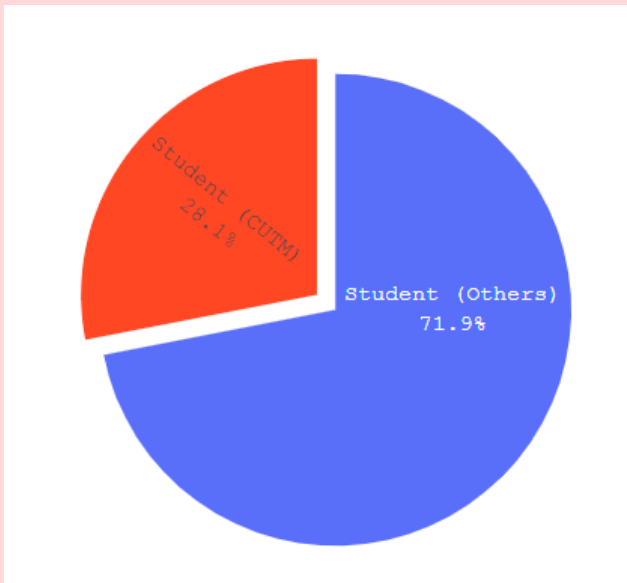
School of Paramedics and Allied Health Sciences in collaboration with Swasthya Swaraj Society (Bhawanipatna) is providing a Diploma in Community Health Practices to students belonging to tribal areas. After successful completion of the course, students become qualified to provide primary health services, reducing neonatal and maternal mortality rates of the local tribal community. Another outcome is to improve the educational status of children belonging to scheduled castes and tribes in order to empower communities. More information could be availed at <http://www.swasthyaswaraj.org/wp-content/uploads/2019/07/Annual-Report-2018-2019.pdf> <http://www.swasthyaswaraj.org/wp-content/uploads/2021/06/SS-Newsletter-Apr-21.pdf>



Access to E-resources

E-Resources (<https://cutm.ac.in/library/e-resource/>)

- The University e-resources in the library is freely accessible to all outsiders being a partner of National Digital Library Mission of GOI in mentorship of IIT Kharagpur. (<https://ndl.iitkgp.ac.in/index.php>)
- The below graph highlights the library usage.



- All the PhD thesis awarded by the University are housed in an open access database Shodhganga. This is a resource available nationally to all researchers (<https://shodhganga.inflibnet.ac.in/>)



Educational Outreach for disadvantaged communities

Skill Training Program

In 2019-20, Rama Devi Women University (RDWU) and Centurion University of Technology and Management (CUTM) entered into an MOU wherein CUTM was to provide skill training program to RDWU students.



Dairy Unit

An FSSAI registered mini dairy unit at Paralakhemundi campus provides training to all Scheduled Caste (SC)/Scheduled Tribe (ST) students on raising milk breeding animals/Dairy farming. The unit distributes milk and milk products at a reasonable price in the community with an aim to enrich nutritional levels.



Mushroom production

A mushroom production unit on campus run by students train local youth. The unit produces paddy straw mushroom and oyster mushroom which is available for purchase at a subsidized price. The unit in collaboration with the Agricultural Technology Management Agency (ATMA: Government of Odisha) trains SC/ST students through various extension programs. Training on vermicomposting was provided at regular intervals to the residents of Gosani Block, Gajapati District.



Outreach programs with International Organizations

Students from Universities of International repute such as Western Sydney University, Royal Melbourne Institute of Technology, Deakin University, Victoria University, TAFE NSW have completed their programs.





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Addressing equality for all genders

Equal opportunity cell and policy

To promote inclusive growth for all, including gender-based diverse populations, the Centurion University of Technology and Management (CUTM) has constituted an equal opportunity cell with a policy. The objective is to create a non-discriminating environment, educate, counsel and empower diverse communities to realize their potential and bring them to mainstream society. The policy emphasizes inclusive practices across all caste, creeds, religions, gender, language, region, age and incomes. A dedicated committee is created to monitor to resolve the challenges faced by various gender-based populations. The policy is available at <https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/About/Act-Statutes-Ordinances/Equal-Opportunities-Cell&catID=144>

Special focus on students

To create a sustainable environment in the university campus and to contribute towards sustainable growth of the region, many policies and committees are in practice that ensure inclusive practices and social justice. The following are the steps taken to bring equality:

1. Policy against sexual harassment
2. Policy against ragging
3. Grievance redressal policy
4. Various committees are constituted that include the students, like,
 - a. Gender Champion
 - b. Student redressal committee
 - c. Anti-ragging committee

The various policies and committee details could be found at

<https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/About/Act-Statutes-Ordinances/Policy-on-Sexual-Harassment&catID=144>

<https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/About/Act-Statutes-Ordinances/Anti-Ragging-Policy-of-CUTM&catID=144>

<https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/About/Act-Statutes-Ordinances/Grievance-Redressal-Policy-of-CUTM&catID=144>

<https://cutm.ac.in/about/rules-policies/>

Awareness campaign by students, our future for sustainability

Youth addressing violence against women

Violence against women is one of the widespread human rights violations in the world. The young students of Centurion University of Technology and Management (CUTM) are very mindful of this devastating act of inequality. Through their cultural, sports and responsibility activities, the youths of CUTM spread the message of equality and make aware the women of local and regional communities about their rights and respect. The activities include street plays depicting the issue of violence against women.



National Women's Day

National Women's Day is celebrated on 13th February every year by the students of CUTM. This is celebrated to realize the power of women to transform society, sustainability through the equality and education of women, and the role of women as the mother of future responsible generations. In the year 2020, the theme of the celebration was related to the empowerment of women. A poster-making competition was also organized.



Collaborate with NGO Ama Ghara

The Ama Ghara works for the Cause, Care & Concern of the Children of Mentally Ill & Mentally Challenged Destitute Women and Kids. An activity by CUTM students was organized for the differently-abled women and kids of Ama Ghara on the theme "Beti Bachao, Beti Padhao". An aid in terms of monetary contribution was also made to the NGO.



The details of the activities and many more could be found at https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/csr/CSR_Annual_Report_2019_20&catID=150

Inclusiveness for transgender

Inclusiveness program

The Centurion University of Technology and Management (CUTM) is very much aware of the harassment and discrimination against the transgender community in India. The CUTM very well understands the requirement of social awareness and inclusiveness of transgenders for better social equality and sustainability. Thus, to address the problems of Transgender inequality an activity and awareness program was organized by CUTM. The transgender community belonging to “Sakha & Sambhavi” organization and Humara Bachpan team visited CUTM. The transgenders were educated about the prospects of being skilled and various skill-related courses, open to them by CUTM, were discussed with them. The transgender guests showed equal enthusiasm to empower themselves with the skills of apparel making, hospitality and e-rickshaw manufacturing.

Project and Publication

The CUTM has sponsored a project titled “Changing Hijra Identity, Livelihood and Role: Narratives from Odisha” to better understand the role of transgenders in society, the livelihood possibilities and creating their identity for inclusiveness in society. The “Hijra” term is referred to transgenders as native to India. The project is mentioned in the website <http://research.cutm.ac.in/courses/center-for-governance-and-sustainable-societies/>.

Research is carried out to understand, analyze and discuss the dynamics of redefining Hijra identity, its interlinkages with their current livelihoods, lives of Hijras who have acceptance in the larger society, implications for expanding alternatives for livelihoods and promoting rights of the larger Hijra community in the state of Odisha. The corresponding publication reference is

Payal Nayak & Smita Mishra Panda (2020): Redefining identity and expansion of livelihood options among Hijras in India, Gender, Technology and Development.





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<https://cutm.ac.in/sustainability/sdg/>

Programs for local farmers about fisheries and aquaculture

Kisan Mela

Kisan Mela was organised by the School of Fisheries, Centurion University of Technology and Management, Paralakhemundi, Odisha to provide the latest agricultural information, and guide/motivate farmers to adopt new scientific and profitable practices. The theme was “Way



Towards Blue Economy and Food Security” which emphasized the need for increasing fish productivity for eliminating hunger and poverty and contributing to a sustainable economy. Around 500 farmers visited the stalls and got information regarding modern fish culture techniques. It enabled our faculty and students to interact with farmers and address their problems. The Kisan Mela proved to be a great success for the farmers of the Gajapati district.

Farmers training -ATMA

School of Fisheries in collaboration with the Agricultural Technology Management Agency (ATMA), organised a farmer training related to aquaculture and fish processing. Training included aquarium fabrication, pre-stocking and post-stocking management in fish culture. The farmers were, also, exposed to the fish processing unit, where they experienced hands-on training on the preparation of fish pickles, shrimp pickles and value-



added products. ATMA farmers' training was completed with positive feedback from the participants. The training provided a pathway to farmers for sustainable livelihood generation from fisheries and aquaculture, which is an untapped sector at Parlakhemundi.

More details about both the events and many more could be found in the website <https://cutm.ac.in/schools/school-of-fisheries/>

Awareness events

Clean Beach awareness programme

The clean beach campaign was carried out by the School of Fisheries, Centurion University of Technology and Management. The focus was the prevention of plastic pollution in the ocean for a healthier ocean and a sustainable future. The programme includes an awareness rally to create



awareness among the public. The waste materials especially plastic items, unusable damaged fishing gears and broken glass remains were segregated and disposed of safely in dust bins.

Conservation of Freshwater Fish Biodiversity in Ramsagar Reservoir

Ramsagar Reservoir is situated in the Gajapati district of Odisha. The region faces some serious environmental degradation and loss of native fish biodiversity that must be addressed urgently. This degradation is beginning to pose a major threat to the well-being of the fish population of the reservoir. The school has conducted several programs for the upliftment of local fish farmers as well as encouraging the restoration of the reservoir ecosystem.



The school has taken initiative for weed clearance of the reservoir with student involvement every month. Further cast nets are also operated to remove any alien species in the water body. The school has also conducted a biodiversity study for the reservoir to find the fish diversity of the area.

The details of both the events are available at <https://cutm.ac.in/schools/school-of-fisheries/>

Fish waste utilization

With increasing global fish production, a large quantity of by-products/waste is also generated. These by-products/wastes are, mainly, non-edible tissues like bones, skin/scales swim bladders, fins, intestines, blood, roes, liver, etc. which are a rich source of protein, lipid, enzymes bioactive peptides, pigments, flavours, vitamins and minerals. Therefore, it is important to recycle the wastes, add value, and convert them into marketable products that minimize environmental pollution and threat to ecosystem damage. Thus, a sustainable economy and a green environment are created. The school of fisheries (SoF) has adopted technology for the utilization of the fish waste into several value-added products such as fish silage and fishmeal.

Fish silage

The preparation of fish silage using the fish waste was carried out at the Fish Processing Technology laboratory of SoF. The silage is used for the preparation of fish and poultry feed as a value-added product.



Fishmeal

Fishmeal is a nutrient-rich feed ingredient used, primarily, in diets for domestic animals and as high-quality organic fertilizers. Fishmeal can be made from any type of seafood but is



generally manufactured from wild-caught, small marine fish that contain a high percentage of bones and oil. Approximately 4 to 5 tonnes of whole fish are required to produce 1 tonne of dry fishmeal. Proximate composition and biochemical parameters were measured as per guidelines to check the safety of the product. The SoF, Paralakhemundi campus, has formulated and prepared feed for fishes on an experimental scale.

The above-mentioned activities form the full degree course of CUTM. The details are available at <http://courseware.cutm.ac.in/courses/fish-byproducts-and-waste-utilization/>



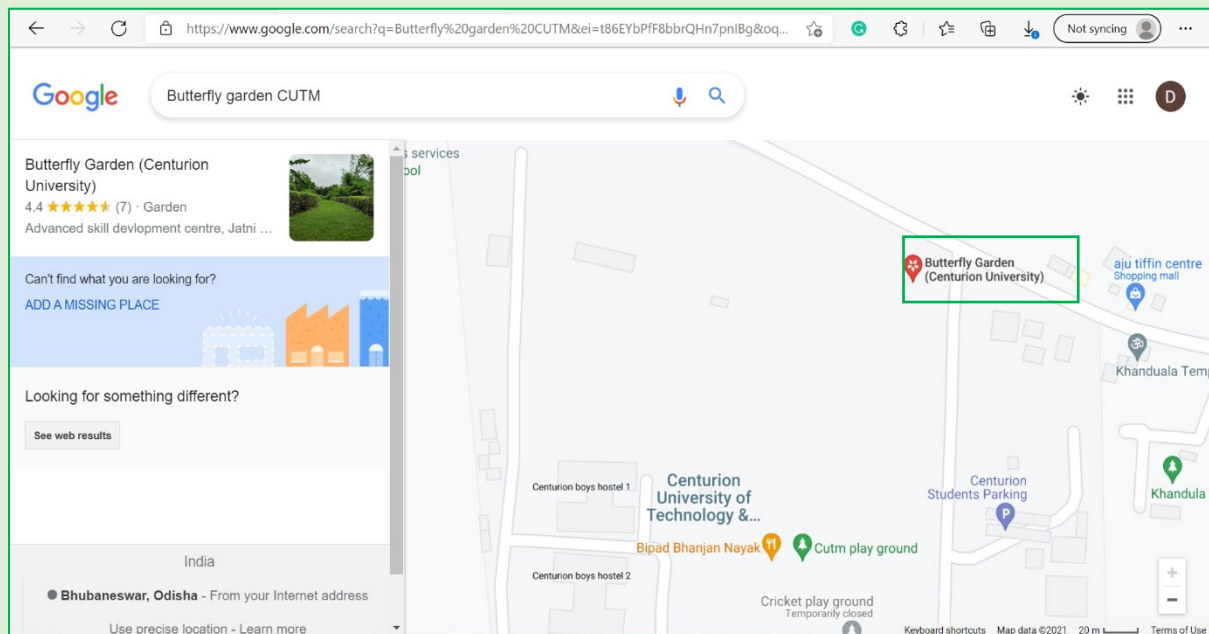
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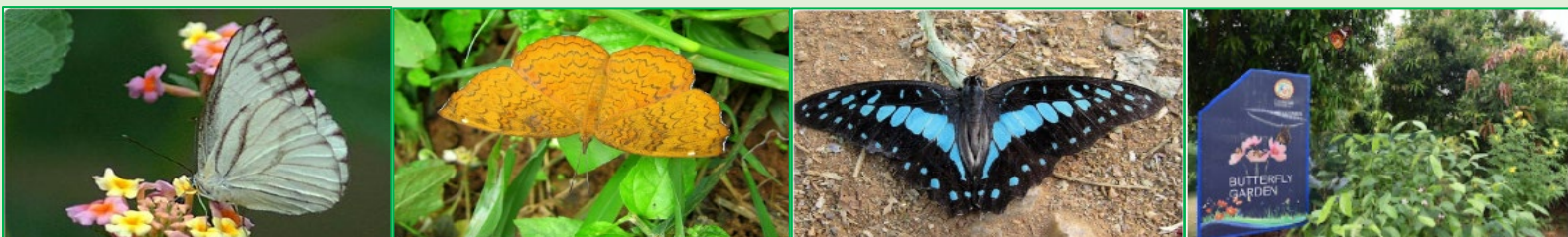
<https://cutm.ac.in/sustainability/sdg/>

Butterfly Garden

The Butterfly Garden is a very solemn step by Centurion University of Technology and Management (CUTM) towards the conservation of habitat designed to promote the breeding of butterflies. It is a commitment to work towards a sustainable, green environment in the campus and surrounding areas. With pollinators on the decline globally, setting up a butterfly garden is an active and very potent step towards a green environment and its sustainability. The Butterfly Garden is a welcome note to the butterflies as one of the chief pollinators. The garden has generated many direct and indirect beneficial outcomes: hands-on and live learning for students, conservation of local biodiversity, restoring and rejuvenating native plants and plantations and projects. The Google map indicates the location of the butterfly garden within the Bhubaneswar campus of CUTM.



More information is available at https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/Academic_Info/The-Gift-of-Butterfly-Garden- Oct2021&catID=285



Dragon Fruit Cultivation

The dragon fruit cultivation is an innovative experimental learning initiative of Centurion University of Technology and Management (CUTM). It is an action research project connecting ecology, economy, education and entrepreneurship. The dragon fruit is considered a promising, remunerative and relatively durable fruit crop. Regular consumption of Dragon fruit helps in fighting against many ailments. It has many environmental benefits also. The water footprint is low as only 967 litres of water is used to produce 1 kg of fruit. Carbon footprint is low as only 0.9 kg CO₂ is liberated to produce 1 kg of fruit. The dragon fruit production is relatively sustainable and there are no significant damages to air, water, land, soil, forests, etc. The CUTM has research goals with the dragon fruit: cultivation of dragon fruit organically with various treatment (nutrient) combinations, production of dragon fruit during the off-season, development of a standard package of practice (POP) documentation for dragon fruit which is not standardized yet for the Gajapati district of Odisha, cultivation of different types of dragon fruits. The compost out of dragon fruit skin will be a new area of intervention and we intend to have a comparative study in terms of the nutrient status of dragon fruit skin compost with other composts.



The details are available at https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/sdg/pdf/R1_Dragon-Fruits-Action-Reserach-Project-Report&catID=286



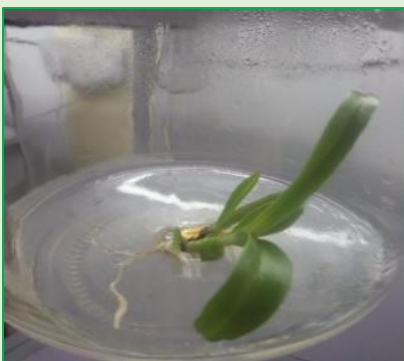
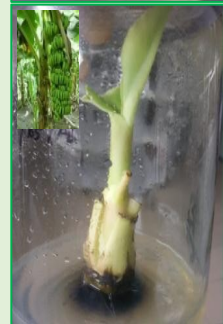
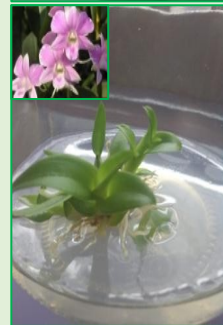
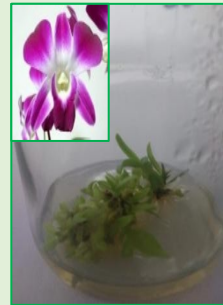
Plant Tissue Culture

The Plant Tissue Culture Laboratory provides starter plants like banana, pineapple and ornamental plants. The laboratory works to produce healthy seedlings free from pathogens and uniformity. The laboratory aims to promote academics, research and training for under-graduate, post-graduate and doctoral students for skill development, professional excellence and productivity at industrial sectors for an ultimate benefit to the tribal farmers, rural society and entrepreneurs.

Spread over 40 acres of land the diversity in Bhubaneswar campus is comprised of tree species, bird species, butterfly, insect and arthropods. The University in its quest to become a Green Campus has more than 3,000 trees over its 40 acres Campus at Bhubaneswar, which attract a wide variety of flora and fauna. The afforestation and reforestation programs through plantations help to maintain and restore the biodiversity on the campus.

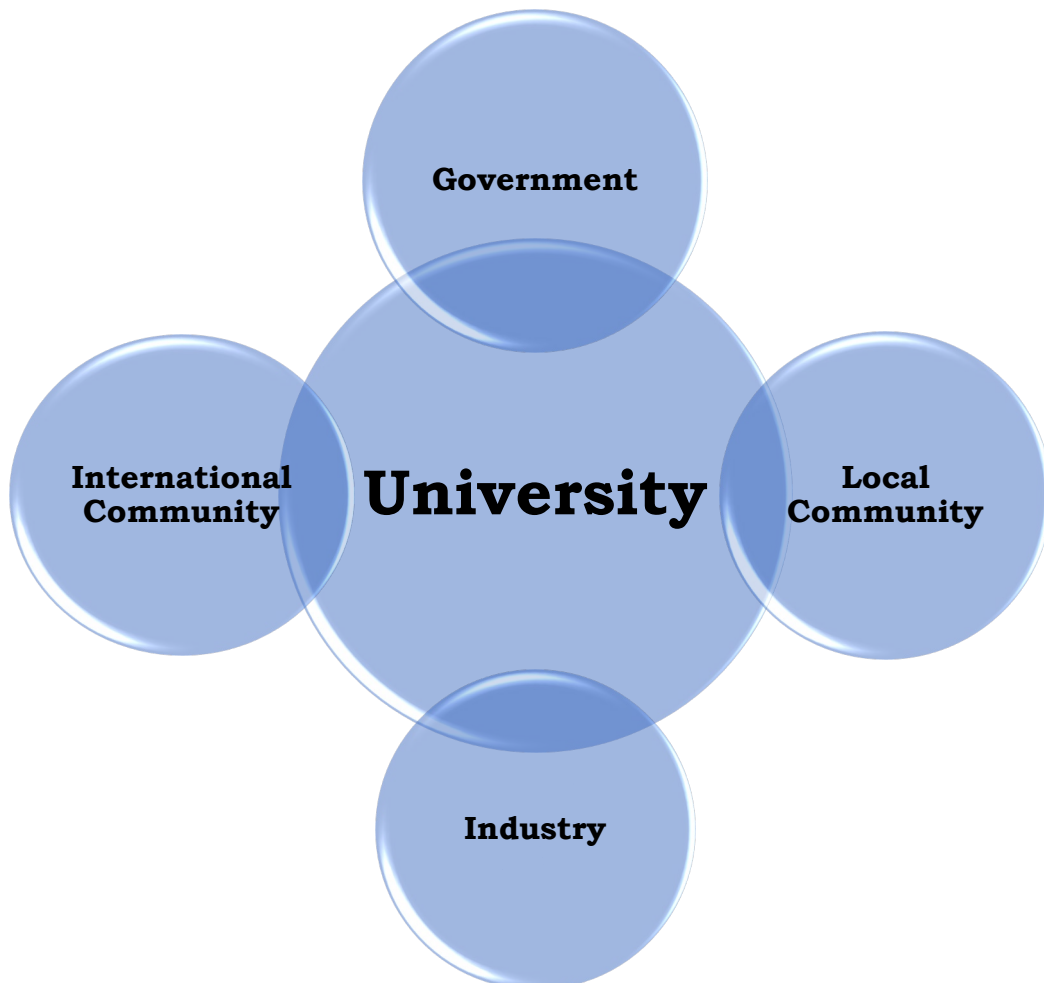


Web Link: <http://research.cutm.ac.in/courses/center-for-genetics-and-genomics/>





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<https://cutm.ac.in/sustainability/sdg/>



Kandhamal Turmeric processing cluster

The study revealed that there are 13 operational turmeric units that have huge potential in the market. However, the units are having problems related to credit facilities, infrastructure facilities, lack of market information and training, etc. It was proposed to strengthen the existing units and improve the basic infrastructure facilities in the cluster.

More details are accessible at

<https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/sdg/pdf/DIAGNOSTIC-STUDY-Turmeric&catID=286>

The Centurion University of Technology and Management (CUTM) is involved in and provides inputs to Ministry of Micro, Small and Medium Enterprises, Government of India, in identifying problems, challenges and opportunities through Cluster Diagnostic Activities. The provided inputs influence the development of future policies, strategies and implementation plans before practical interventions.

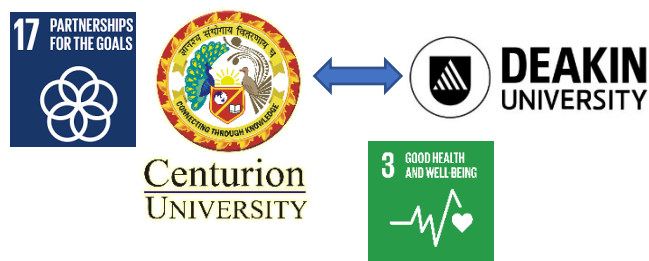
Following Clusters are assessed: Kandhamal Turmeric processing cluster, Nawarangapur Maize processing cluster, Keonjhar Iron ore cluster, Koraput Fly Ash brick cluster and Ganjam/Gajapati Pottery cluster.

The CUTM collaborates with various international universities, institutes, and industries, like, Deakin University, World Bank and Gap foundation of GAP Inc. for data gathering or measuring data for the Sustainable Development Goals (SDGs).

Various non-government organization (NGO) like, BREDS, SACAL, Harsha Trust, Tata Steel, Sabuja Biplab, and CARE are, also, involved in gathering the data.

The data gathered and measured are related to the sustainable development goals no. 3 (Good health and Well Being), 4 (Quality Education), 5 (Gender Equality), and 10 (Reduced Inequalities).

The results are either published as book chapters, papers or reports.



The health condition of the farmers with relation to hearing, eye-sight, diabetes, drug addiction, depression, obesity and cancer was surveyed and assessed.

Reference: Anita Patra and Tapas Bantha, *Farmers Health in South Odisha - An Empirical Investigation*, “Centurion, an entrepreneurial university in the making: local impact with global relevance”, page no. 162 (2020) ISBN: 978-81-949112-2-7.



The Centurion University of Technology and Management (CUTM) collaborates with international universities for research, review comparative approaches and develop international best practice on tackling the Sustainable Development Goals (SDGs). The CUTM signed Memorandum of Understanding with Western Sydney University (WSU), Norwegian University of Science and Technology (NTNU) and Royal Melbourne Institute of Technology (RMIT) for the purpose.

The purpose of the collaboration with NTNU is to collaborate for joint research and education activities to create international best practice models to tackle sustainable development goal 4 (Quality Education). The activities are planned around the mobility of graduate students, undergraduate students, faculty and staff, joint publications, participation in seminars and academic meetings, exchange of academic material, special short-term academic programs.

Funding received from UTFORSK for student and faculty exchange for internship for MBA students in social entrepreneurship and joint research. Nine students are currently pursuing internships in three NGOs in India. Two students from CUTM visited NTNU for one semester for an educational course on Masters in development management which created a synergy among the educational curriculum across the international borders which enhances the quality of education. The MoU is attached herewith and is also available at https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/academic_partners/MOU_WITH_NTNU&catID=

**Development of educational resource with NGO
Diploma in Community Health Practice:**

The School of Paramedics and Allied Health Sciences of CUTM has designed a Diploma course in Community Health Practice in collaboration with a non-governmental organization (NGO) Swasthya Swaraj Society.

(<https://cutm.ac.in/programmes/diploma-in-community-health-practice/>)

Through this venture the CUTM has interlinked the sustainable development goal (SDG) 3 (Good Health and Well-Being), SDG 4 (Quality Education), SDG 5 (Gender Equality) and SDG 10 (Reduced Inequalities). The details are reported in the Annual report and newsletter of Swasthya Swaraj Society which could be accessed through the weblink:

<http://www.swasthyaswaraj.org/wp-content/uploads/2019/07/Annual-Report-2018-2019.pdf>
<http://www.swasthyaswaraj.org/wp-content/uploads/2021/06/SS-Newsletter-Apr-21.pdf>

The CUTM collaborates, also, with non-government organizations (NGO), like, BREDS, SACAL, Harsha Trust, Sabuja Biplab, Swabhiman, ODISA, CARE and Swasthya Swaraj Society to tackle the SDGs through: student volunteering programmes, research programmes, or development of educational resources.



Domain Course: Intensive Aquaculture

Aquaculture is vital for eradicating hunger, providing food security and nutrition for the growing population of our world. The livelihood of more than 120 million people is dependent on aquaculture-related activities. The carbon footprint of aquaculture is very low. Thus, a domain course titled “Intensive Aquaculture” is designed to provide aquaculture-specific real-life problem-solving skills to students such that responsible solutions could be provided by students towards a sustainable economy. This quality education programme keeps pace with sustainable development goal 1(No Poverty), 2(Zero Hunger), 4(Quality Education).

Details of the mentioned domain course could be accessed at

<http://courseware.cutm.ac.in/courses/11961/>



The Centurion University of Technology and Management (CUTM) is actively involved in providing meaningful education and very much committed for education around Sustainable Development Goals. The university provides Domain Courses, Core Courses and Certificate Courses. The domain courses are across the campuses and open for all students, the core courses are full degree courses including electives, the certificate courses are dedicated outreach educational activities for the wider community including alumni, local residents, and displaced people.

Core course: Climate Change, Sustainability and Organisations

The core course titled “Climate Change, Sustainability and Organisations” is designed to create awareness among students about climate change in general and the impact of climate change on organisations in performance, growth and sustainability. It facilitates students in developing reference points to factor in aspects of climate change in organizational planning and development. The student develops an understanding of sustainable development, SDGs and their relevance for the sustainability of organisations and the application of the Integrated Reporting Framework for Sustainability in business. The course incorporates sustainable development goals 4(Quality Education), 12(Responsible Consumption and Production), and 13(Climate Action) of United Nations.

The course details are available at

<http://courseware.cutm.ac.in/courses/climate-change-and-sustainable-development/>



Certificate course: Dairy Farming

The certificate course titled “Dairy Farming” aims at the development of the necessary human resource and enhancing the existing skills of professionals for the dairy farming system on sustainable and scientific pathways. It, also, encourages entrepreneurship among the youth for self-employment. It imparts technical proficiency in sustainable practices of dairy farm management, animal health management, fodder production and clean milk production. The course involves knowledge creation related to sustainable development goals 1(No Poverty), 2(Zero Hunger), 4(Quality Education), and 12(Responsible Consumption and Production) of United Nations.

The course details are available at

<http://courseware.cutm.ac.in/courses/certificate-course-in-dairy-farming/>



OTHER SDGs

The Centurion University of Technology and Management (CUTM) focusses, mainly, on SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 3 (Good Health and Well Being), SDG 4 (Quality Education), SDG 5 (Gender Equality), SDG 14 (Life Below Water), SDG 15 (Life on Land). However, the SDGs are interlinked and indivisible. Moreover, CUTM is committed to fulfill other goals of SDGs, also. Thus, the glimpse of such activities is presented below.



- **Watershed Management Strategy:**

<https://cutm.ac.in/wp-content/uploads/sdg/pdf/Watershed-management-strategy.pdf>



- **Sewage treatment:** The CUTM has its own sewage treatment plant. The treated waste water is used for agriculture, plantation, vegetation, and gardening. The **Plant capacity** is

- Maximum daily demand = 180 lit/day
- Average water supply per day = $180 \times 1550 = 279000$ lit = 279cu.m
- Average sewage generated per day = 85% of supplied water

$$= 0.85 \times 279 = 223 \text{ m}^3$$

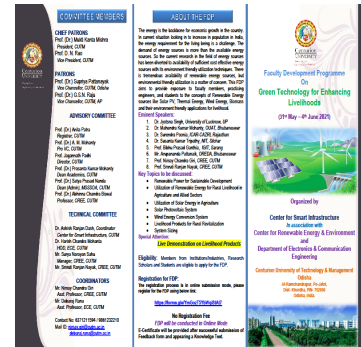
- Average sewage generated per hour = $223/24 = 9.29$ cu.m/hr
 - Peak factor = 3
 - Design flow capacity (maximum) = $9.29 \times 3 = 27.85$ cu.m/hr
 - More details could be found at <https://cutm.ac.in/schools/school-of-applied-sciences/>
-
- **Waste to Wealth:** The Centurion University established goal of the action-learning-research interventions to minimise the pressure on natural resources by recycling and reusing them, thereby minimising waste, and generating wealth from waste. More details at <https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/sdg/pdf/Waste-to-Wealth&catID=315>

7 AFFORDABLE AND CLEAN ENERGY



• **Faculty development program (FDP) titled “Green Technology for Enhancing Livelihoods”**

The rising demand of energy sources enhanced the research on cost effective and environment friendly energy sources. The fdp discussed the Solar PV, Thermal Energy, Wind Energy, Biomass and their environment friendly applications for livelihood. https://cutm.ac.in/wp-content/uploads/event/FDP_Green/FDP_Brochure_GTEL_CUTM-2021.pdf



- **E-Rickshaw:** The research center for Smart Engineering Application focusses on the environment friendly transport facilities. It produces E-Rickshaw. More details <http://research.cutm.ac.in/courses/29890/>



- **Core (full degree) Course:** The CUTM has clean energy related learning course for students that align with the SDG. The full-time course is titled “Renewable Energy & Green Technology”. <http://courseware.cutm.ac.in/courses/renewable-energy-green-technology/>

8 DECENT WORK AND ECONOMIC GROWTH



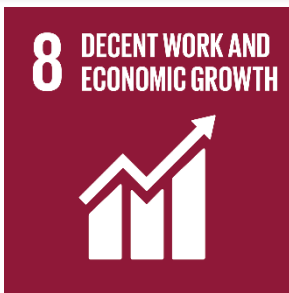
With the intention of mobilizing youth from the rural/urban areas for training, sustainable employability/employment and entrepreneurship the **Gram Tarang Employability Training Services** was established.

This vertical of CUTM empowers youth from **marginalized and disadvantaged regions (especially from left wing extremist affected areas) of India**, with the skills needed to ensure employability.

<https://cutm.ac.in/download-pdf/?pname=wp-content/uploads/campus/Enterprises/MOA-AOA&catID=158>

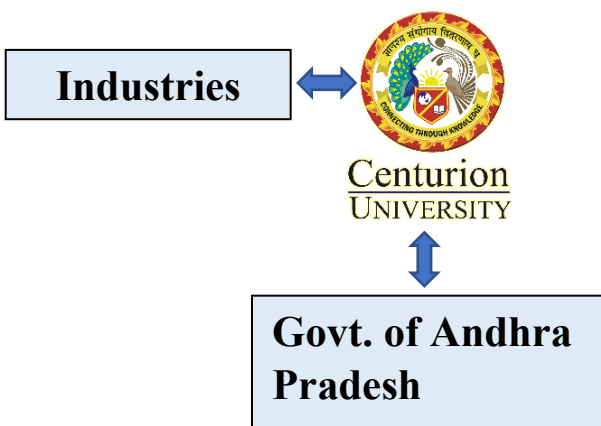


The Centurion University, in its pursuit of excellence in technology, set up the **Gram Tarang Technologies**. The aim is to promote the product-oriented research in technology to empower youth and communities. It is focused on knowledge economy and service industry. It successfully trained youth for employment and also to set up enterprises. The University supported students to follow their dreams and establish start-ups.



- High end skill development
- Research & Development

<https://www.thegttech.com>



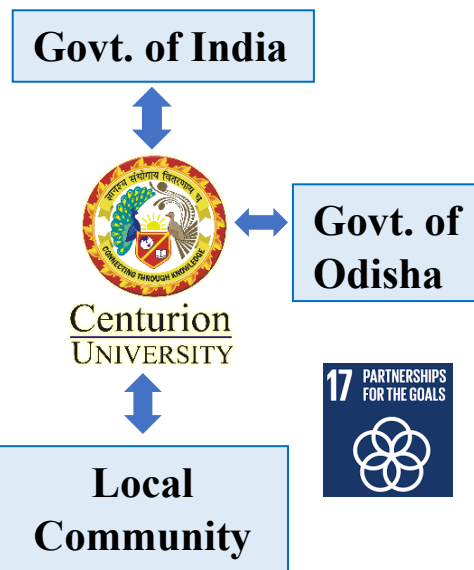
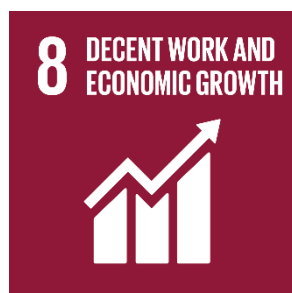
OUTCOME:

- Student Start-ups
 - E-Vehicles
 - Eco-friendly pens
 - Skill training to college students
- Industry oriented research
 - Phyto Pharma applications
 - Bio medical devices
 - Insulin pump
 - Smart agriculture applications

Urban Micro Business Center

Students:

- Urban slum-dwellers
 - Urban poor women
 - Low-income group
- Technical skill building
 - Entrepreneurship development training
 - Product based training
 - Handholding for Entrepreneurship development
 - Business launch training
 - Employability training and placement



P.K. Sahoo and B. Dash, Urban

Micro Business Center: A commitment to empower community, "Centurion, an entrepreneurial university in the making: local impact with global relevance", page no. 37 (2020) ISBN: 978-81-949112-2-7.

<https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/campus/Enterprises/MOA-AOA-Centurion-SCIENCE-AND-TECHNOLOGY&catID=158>



The agenda of research centers of CUTM are directed towards innovative solution to industry problems, solving real-life societal problems, and shaping the young minds for entrepreneurship. Some of the examples of such research centers are:

- **Center for Agriculture Production:** <http://research.cutm.ac.in/courses/center-for-agriculture-production/>
- **Center for Genetics and Genomics:** <http://research.cutm.ac.in/courses/center-for-genetics-and-genomics/>
- **Center for Innovation and Entrepreneurship:** <http://research.cutm.ac.in/courses/center-for-innovation-and-entrepreneurship/>

10 REDUCED INEQUALITIES



The CUTM is very much aware of the importance of bringing equality among various communities, caste, creed and gender for sustainable future. It has various policies to address the problems related to the inequalities. Some of the policies are

- **Policy on Sexual Harassment:** <https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/About/Act-Statutes-Ordinances/Policy-on-Sexual-Harassment&catID=144>
- **Policy on Equal Opportunity:** <https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/About/Act-Statutes-Ordinances/Equal-Opportunities-Cell&catID=144>
- **Grievance Redressal Cell:** <https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/About/Act-Statutes-Ordinances/Grievance-Redressal-Policy-of-CUTM&catID=144>

11 SUSTAINABLE CITIES AND COMMUNITIES



The CUTM addresses sustainability issues related to cities and communities through research and supporting start-ups. Thus, SMART Agriculture Research Centre and Center for Smart Infrastructure have been established. UMBC has been supported by CUTM to enhance the quality of life of local under-privileged urban communities.

- **SMART Agriculture Research Centre:** <http://research.cutm.ac.in/courses/center-for-smart-agriculture/>
- **Center for Smart Infrastructure:** <http://research.cutm.ac.in/courses/center-for-smart-infrastructure/>
- **UMBC:** <https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/sdg/pdf/UMBC-Brochure-2017-Final-on-20-Feb-2017-1&catID=19>

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



The CUTM established SMART Agriculture Research Centre to optimise the use of water, nutrients and smart technology to reduce the environmental stress due to agriculture. The Center for Waste to Wealth Management converts waste materials to useful products that maintains the responsible consumption and production. The CUTM developed technology to convert waste food to bio-fertilizers.

- **SMART Agriculture Research Centre:** <http://research.cutm.ac.in/courses/center-for-smart-agriculture/>
- **Food Waste to Wealth:** <https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/sdg/pdf/Waste-to-Wealth&catID=315>
- **Center for Waste to Wealth Management:** <http://research.cutm.ac.in/courses/center-for-waste-to-wealth-management/>

13 CLIMATE ACTION



Excess use of Urea causes greenhouse gas emission. The SMART Agriculture Research Centre optimizes the use of nutrients. The Climate Change, Sustainability and Organizations course teaches students about the causes, effects and remedies for environmental changes. The conference on green energy increases awareness among people.

- **SMART Agriculture:** <http://research.cutm.ac.in/courses/center-for-smart-agriculture/>
- **Climate Change, Sustainability and Organizations:** <http://courseware.cutm.ac.in/courses/climate-change-and-sustainable-development/>
- **CREE Green energy conference:** https://cutm.ac.in/wp-content/uploads/event/FDP_Green/FDP_Brochure_GTEL_CUTM-2021.pdf

16 PEACE, JUSTICE
AND STRONG
INSTITUTIONS



To address the objective of SDG 16 Forensic science course has been introduced. The Grievance Redressal and Anti-ragging Policy have been implemented to ensure peace, justice and strong institutions in the campus and among students, faculty and staff of CUTM.

- **Forensic science:** <https://cutm.ac.in/schools/school-of-forensic-sciences/>
- **Grievance Redressal:** <https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/About/Act-Statutes-Ordinances/Grievance-Redressal-Policy-of-CUTM&catID=144>
- **Anti-ragging Policy:** <https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/About/Act-Statutes-Ordinances/Anti-Ragging-Policy-of-CUTM&catID=144>

www.cutm.ac.in/sustainability/sdg/