



The Annual Quality Assurance Report (AQAR) of the IQAC Year: 2018-19

Part – A

1. Details of the Institution

1.1 Name of the Institution

Centurion University of Technology & Management
(CUTM)

1.2 Address Line 1

At – Village Alluri Nagar, P.O – R Sitapur, Via –
Uppalada

Address Line 2

Parlakhemundi

City/Town

Parlakhemundi, District - Gajapati

State

Odisha

Pin Code

761211

Institution e-mail address

registrar@cutm.ac.in

Contact Nos.

06815-222150

Name of Head of the Institution:

Prof. Haribandu Panda (01.08.2016 to 31.07.2019)
Dr. Supriya Pattanayak (Continuing science 01.08.2019)

Tel. No. with STD Code:

06815-222020

Mobile:

+91 9861320399

Name of the IQAC Co-ordinator:

Parlakhemundi Campus: Prof. Girish Prasad Rath
Bhubaneswar Campus: Prof. K.V.D. Prakash

Mobile:

Prof. Girish Prasad Rath: 7008530115
Prof. K.V.D. Prakash: 8328964815

IQAC e-mail address:

gprath@cutm.ac.in
prakash.kvd@cutm.ac.in

1.3 NAAC Track ID (For ex. MHC0GN 1887)

ORUNGN11310

1.4 NAAC Executive Committee No. & Date:

F.19.26/EC (SC-10)/DO/2015/17.1

1.5 Website address:

www.cutm.ac.in

Web-link of the AQAR:

<https://cutm.ac.in/download-pdf/?pname=/wp-content/uploads/iqac/AQAR-2018-19&catID=144>

1.6 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 st Cycle	A	3.10	2015	5 years up to 15-11-2020
2	2 nd Cycle	-	-	-	-
3	3 rd Cycle	-	-	-	-
4	4 th Cycle	-	-	-	-

1.7 Date of Establishment of IQAC:

01.07.2012

1.8 AQAR for the year:

2018-19

1.9 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC

- i. AQAR 2014-15 submitted to NAAC, Bengaluru on - Not Applicable
- ii. AQAR 2015-16 submitted to NAAC, Bengaluru on 13.04.2017
- iii. AQAR 2016-17 submitted to NAAC, Bengaluru on 11.04.2018
- iv. AQAR 2017-18 submitted to NAAC, Bengaluru on 10.01.2019

1.10 Institutional Status

University State Central Deemed Private

Affiliated College Yes No

Constituent College Yes No

Autonomous college of UGC Yes No

Regulatory Agency approved Institution Yes No

(e.g. AICTE, BCI, MCI, PCI, NCI)

Type of Institution Co-education Men Women

Urban Rural Tribal

Financial Status Grant-in-aid UGC 2(f) UGC 12B

Grant-in-aid + Self Financing Totally Self-financing

1.11 Type of Faculty/Programme

Arts Science Commerce Law PEI (Phys Edu)

TEI (Edu) Engineering Health Science Management

Others (Specify)

B.Sc. Agriculture, Diploma in Engineering agriculture,
BA / MA Media & Communication

1.12 Name of the Affiliating University (*for the Colleges*)

NA

1.13 Special status conferred by Central / State Government-

UGC/CSIR/DST/DBT/ICMR/ICAR etc.

Autonomy by State/Central Govt. /University	-	
University with Potential for Excellence	-	UGC-CPE -
DST Star Scheme	-	UGC-CE -
UGC-Special Assistance Programme	-	DST-FIST -
UGC-Innovative PG programmes	-	Any other (<i>Specify</i>) UGC 12(B)
UGC-COP Programmes	-	

2. IQAC Composition and Activities: (Paralakhemundi Campus – C1, Bhubaneswar Campus – C2)

2.1 No. of Teachers	C1:13	C2:15
2.2 No. of Administrative/Technical staff	C1: 2	C2: 2
2.3 No. of students	C1: 2	C2: 2
2.4 No. of Management representatives	C1: 1	C2: 3
2.5 No. of Alumni	C1: 1	C2: 1
2. 6 No. of any other stakeholder and Community representatives	C1: 1	C2: 1
2.7 No. of Employers/Industrialists	C1: 1	C2: 1
2.8 No. of other External Experts	C1: 1	C2: 1
2.9 Total No. of members	C1: 18	C2: 20

2.10 No. of IQAC meetings held

C1: 17	C2: 12
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2.11 No. of meetings with various stakeholders:

Faculty

C1: 15	C2: 6
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Non-Teaching Staff/Students

C1: 5	C2: 7
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Alumni

C1: 2	C2: 3
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Others

C1: 8	C2: 3
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2.12 Has IQAC received any funding from UGC during the year? Yes/No

If yes, mention the amount

NIL

2.13 Seminars and Conferences (only quality related)

(i) No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC

Total

18

Level International

3

 National

6

 State

4

 Institution

5

(ii) Themes

Skills for Success

2.14 Significant Activities and contributions made by IQAC

- NAAC accreditation with ‘A’ Grade
- India Rankings NIRF
- Data submission for AISHE, MHRD
- Curriculum and Syllabus compilation for Science, Engineering and other Programs

The IQAC Cell of one campus undertakes academic audit of other campus. In every semester, it collects students’ feedback and self-appraisal reports for faculty. It also conducts meetings with all its stake holders for improvement of curriculum and enhancement of quality in teaching, Japanese Language, Sports and Media related activities. The ERP of the University is used for feedback collection and analysis. Feedback of syllabus analysis and workshop for student & faculty on latest technology through IQAC co-ordinators.

Part – B

Criterion – I

1. Curricular Aspects

1.1 Details about Academic Programmes

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added/Career Oriented programmes
PhD	17	2	-	-
PG	25	2	-	-
UG	35	2	-	-
PG Diploma	-	-	-	-
Advanced Diploma	-	-	-	-
Diploma	10	1	-	-
Certificate	-	-	-	-
Others (M.Phil)	6	2	-	-
Total	93	9	-	-
Interdisciplinary	2	0	0	0
Innovative	1	0	0	0

1.2 (i) Flexibility of the Curriculum: CBCS Core Elective option

Open options CBCS & Core and Value added courses

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	93
Trimester	NA
Annual	NA

1.3 Feedback from stakeholders* Alumni Parents Employers Students
(On all aspects)

Mode of feedback : Online Manual Co-operating schools
(for PEI) N.A.

**Analysis of the feedback in the Annex III.*

1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.

CBCS syllabus consolidated for all BSc Programmes offered by School of Applied Sciences (SoAS)

- i. The university has revised the curriculum and has introduced CBCS system for all UG Programmes (B.Sc.) offered by School of Applied Sciences (SoAS) from the Academic year 2016-17. The B.Sc. syllabi for honours curricula of Botany, Chemistry, Mathematics, Physics and Zoology patterned after UGC prescribed templates (vide web page: https://www.ugc.ac.in/ugc_notices.aspx?id=1077) have been introduced.
- ii. Salient features of CBCS system of B.Sc. Programmes:
 - a. 140 Credit to be completed in 6 semesters
 - b. Courses classified into 5 types: Ability Enhancement Compulsory Courses (AECC), Ability Enhancement Elective (Skill) courses, Core Courses, Generic Elective courses and Discipline Specific Elective courses.

CBCS syllabus consolidation for all B Tech Programmes offered by School of Engineering and Technology (SoET)

- i. Centurion University of Technology and Management (CUTM) for the Bachelor of Technology Programs. Specifically, it contains information on Choice Based Credit System (CBCS), including Registration, Selection of Subjects, Time Table, Grading System, Examination Policy, Attendance Policy and Academic Rules applicable at CUTM.
- ii. Salient features of CBCS system of B.Tech Programme:
 - a. 180 Credits to be completed in 8 Semesters
 - b. Courses classified into 5 Baskets
 - c. Basket-I: Basic Science courses (to cover at least 10% of total Credits)
 - d. Basket-II: Humanities & Management (at least 10% of total credits)
 - e. Basket-III: Basic Engineering (at least 15%)
 - f. Basket-IV: Departmental Engineering (25%)
 - g. Basket-V: Industry-Domain centric courses (at least 40%)
 - h. In each Basket there is scope of at least 50% practice courses

School of Management (SoM)

Prior to every academic session, the syllabus as per the present industry feedback is updated in the form of cases and internship A specialization of Programme Management introduced.

We introduced GST with a number of seminars and workshops the orienting the students regarding the change that will impact the service and product market. We considering the change incorporated in the syllabus for the session 2018 -19.

M. S. Swaminathan School of Agriculture (MSSSoA)

M. S. Swaminathan School of Agriculture (MSSSoA) is a platform in agricultural education which is a teaching of agriculture, natural resources, and land management through hands on experience and guidance to prepare students for entry level and advanced agricultural jobs. Demand for agricultural graduates is supposed to multiply almost as quickly as the demand for all other occupation in the coming years.

Special Achievements:

- a) The School of Agriculture, in association with the School of Engineering, is into Unity Game design. It has received a grant of Rs.38 Lakh from Dassault System for this purpose. It has developed applications in the areas of Vermicomposting, integrated farming systems and protected Agriculture. The University has deployed the technology in ATAL project funded by NSDC, Government of India. Till date 16110 farmers have been trained from 25 districts of Odisha.
- b) Under Innovation Agriculture Project 1844 farmers are trained in Vermicomposting in 5 adopted villages.
- c) Letter of Intent of MSSSoA, CUTM for Accreditation has been accepted by ICAR and SSR of MSSSOA, CUTM submitted and Inspection will be in March 2019.
- d) 41 Socially Responsible activities by NCC, NSS & Youth Red Cross, 13 Cultural Events, and 7 Intra College Sport Events were conducted during the year.

Faculty Achievements:

- a. Dr.Tanmoy Shankar, Dr. Piyalli Dutta, Dr. Arkendu Ghosh, Dr. Sashmita Das, Dr. A.Pushparani Devi, Dr. Priyanka Nandi, Dr. Rojeet Thagjam, Dr. Umalaxmi Thingujam, Dr. Veronica Kadam Department of MSSSoA were awarded Ph.D. Degree.
- b. Dr. Atanu Deb presented paper and got the best scientist award in the International Conference on "Emerging Technologies, Systems and Applications (ICETSA-2018)" on 21st – 23rd April, 2018 at Jharkhand Rai University, Ranchi, India.
- c. Prof. Priyadarshani P. Mahapatra. 2018. Organized Vegetable packers training – 40 students in two phases from Punjab and West Bengal in June – 2018.
- d. Prof. Zaman delivered a talk as Chief Guest and Keynote Speaker in National Seminar on Judicious Use of Water and Fertilizer in Modern Agriculture, held at Naihati RBC College, West Bengal on 20 January, 2018, Organized by IFFCO.
- e. Centurion University of Technology & Management, Paralakhemundi is selected as a participating Institute under Unnat Bharat Abhiyan, A Flagship Programme of MHRD.
- f. Prof. Koustava K. Panda Invited speaker (Topic: Carbohydrates – Biological Importance), Prof. Pushpalatha G. Invited speaker (Topic: Recombinant DNA Technology) and Prof. Ramana G. Invited speaker (Topic: Carbohydrates – Biological Importance) at SKCG College, Paralakhemundi, Orissa, 20 January, 2018.

Students' Achievements:

- a. Mr. Pradosh Kumar Parida - final year B.Sc. Agriculture Received BEST AWAAHAN Award for support and outstanding contribution to All India Association for Students in Agriculture (AIASA) on all India nomination basis from Agriculture Minister Shri Sachin Yadav at Jawaharlal Nehru Krishi Viswa Vidyalaya, Jabalpur, Madhya Pradesh in the recently held 4th National Youth Convention jointly organized by ICAR, AIASA and JNKVV with the support of NABARD, Government of India, Ministry of Agriculture. Date - 15th and 16th Feb 2019.
- b. The following students have got prizes in debate competitions organised by DIPRO. Gajapati district on occasion of Vigilance awareness week. Mr. Asish Mishra, 3rd yr. B.Sc. Agriculture got 2nd Prize in English debate competition. Mr Subham Dash, 3rd yr. B.sc. Agriculture got 1st Prize in Odia debate competition and Mr. Bikash Agrawal, 2nd yr. B.sc. Agriculture got 2nd Prize in Odia debate.
- c. The first student initiative agricultural magazine SHYAMALA SUBARNA by Mr. D.Shuvam, released by Minister of Agriculture, Odisha.
- d. B.Sc. Agriculture RAWEP students conducted hundreds of farmer awareness programs in more than 60 Villages of Srikakulam, Gajapati districts and appeared more than 50 times in different news articles and video telecasts of media.
- e. AELP students of Mushroom, Vermicomposting and Bio fertilizer units have conducted method demonstrations to the small scale marginal farmers to encourage self-employment and carried out different social service activities in adopted villages Patikota, Rasur, Barlanda, Parasurampuram etc.

Distinguished visitors have visited different campuses of Centurion University. Some of them include.

- Prof. Barney Glover, Vice Chancellor & President, Western Sydney University.
- Prof. Deborah Sweeney, Deputy Vice Chancellor (Research), Western Sydney University.
- Mr. Brajendra Bhujabal, Director, Engineering – Analytics and AI, Adobe System, INC, USA.
- Mr. Rishi, Talent Acquisition of Hinduja Group.
- Mr. Himanshu Sharma, Vice President-Operations-Polycab –Halol (Gujarat).
- Mr.Mendu Srinivasulu, Vice Prisident, eFresh Agribusiness Solution Pvt Ltd, Hyderabad.
- Mr. B.KSwain –GM-HR Corporate,Patanjali Ayurved Ltd,Haridwar
- Dr. S. K. Srivastav, Director, ICAR-Central Institute Women in Agriculture, Bhubaneswar.
- Dr. J. K. Sunderray, Director, ICAR-Central Institute of Freshwater Aquaculture, Bhubaneswar.

Special Achievements

Paralakhemundi Campus	
Sl.No.	Details
M S Swaminathan School of Agriculture	
1	A text book on Agricultural waste management an elective subject for B.Sc agriculture students having 144 pages dated 2019 was published by M.Devender Reddy, Mandapati Roja and Ch Deepthi of Agronomy Department, MSSSOA, CUTM through Kalyani publishers, New Delhi.
2	“Role of MGNREGA in Livelihood Generation" has been published and book launch ceremony will be held on 09.02.2019.Special reduction offer will be provided to buyer. by Lambert Academic Publishing.
3	Flower enterprises: An alternative option for generating income and livelihood. Associated Asia research foundation.
4	LOI of MSSSoA, CUTM for Accreditation has been accepted by ICAR
5	SSR of MSSSOA, CUTM submitted and Inspection will be in March 2019
6	National Award ‘AIASA Institute of Excellence-2017’ to Centurion University of Technology and Management, on all India nomination basis. The National Award will be presented by Hon’ble Chief Minister, Govt. of Assam as Chief Guest on inaugural session of 3 rd National Youth Convention on “Transforming Agriculture for Agripreneurship & Employment Opportunities: The Youth Perspective” on 23 rd February 2018 at Jorhat (Assam).
7	B.Sc.(Hons.) Horticulture started.
8	MoU’s with BenchBio Pvt.Ltd., e-fresh, Himalaya drugs, ICAR-CIWA, NRRI-Cuttack, Kailash Hatchery, Sabuja Biplav, GOI and HI, Dassault systems foundation, MANAGE
9	Handbook by Deb, A. (2018, October). <i>An illustrated Handbook for Watershed Workers (DharaSevakerHaatboi)</i> . Ford Foundation, West Bengal Government, Prasari- Rajarhat, 1-30.
10	Manual by Deb, A. (2018). <i>Extension teaching materials: A reference manual</i> . Centre for World Solidarity, Jharkhand. 1-50.
11	Book on Rural and Tribal Issues: In regional language by Deb, A. (2018). <i>Saga of Village: A book of transect walk (Pothjayepayethemey)</i> . Kolkata, West Bengal: Chitrangi. ISBN 9789385782411
12	Book chapter by Dr.Shimantini Borkataki – Book – Applied Entomology and Zoology Resistance evolution in insect pests and pathogen(71-94)
13	How to increase the farmers income – Book chapter in Hindi by Dr.Prabhat Kumar Singh
14	More than 20 Adjunct Professors joined in MSSSOA from different parts of the country
15	Dr.Sagar Maitra Book written Agricultural Heritage,A. Zaman and Sagar Maitra, Palm View Publication, Kolkata, August, 2018; ISBN:978-81-932912-7-6 Book Edited Cutting Edge Technologies for Agricultural Sustainability (Eds. A. Zaman and SagarMaitra), published by New India Publishing Agency, New Delhi, July 2018; ISBN: 978-93-87937-28-2

1.5 Any new Department/Centre introduced during the year. If yes, give details.

New Centre/School added are

- Skill Development Centre in collaboration with RD Women's University
- School of Agricultural & Bio Engineering
- Centre for Innovation and Enterpranership

Apart from the above the university has also launched following new courses:

- Bachelor of Technology in Phytopharmacactical
- Bachelor of Media and Communication
- B.Tech in Automobile Engineering
- B.Tech in Aerospace Engineering
- Bachelor of Technology in Computer Science Engineering – Amazon Web Services (AWS)
- Bachelor of Technology in Computer Science Engineering – IBM
- Master in Business Administration in Pharmaceutics
- Master in Business Administration for Executives
- Bachelor of Science in Bio-Chemistry
- Master of Science in Cyber Security

Bhubaneswar Campus

- i. PG Departments in Physics, Chemistry and Maths were created. PG Programmes have been started.
- ii. Schneider Renewable Energy Lab has the following systems installed:
 - a. Solar water pumping system
 - b. Solar micro grid system
 - c. Solar and Wind hybrid system
 - d. Solar home lighting System
- iii. Provides training for students of
 - a. B. Tech courses in Renewable Energy Domain
 - b. Diploma courses in solar Energy Lab
 - c. Solar Energy System Implementation: Suryamitra Trainees
- iv. SELCO Incubation Centre
 - a. Training for new product and process development and application in solar energy
- v. Wood Work Engineering Centre of Excellence
 - a. Provides wood-work skill training to students of the University as a Skill Elective course
 - b. Undertakes in-house manufacturing of class room and hostel furniture as per requirement

Paralakhemundi Campus

- i. Advanced CATIA lab (Mechanical Engineering Department)
 - a. Provides training for students of B.Tech courses in Product and Process Design Domain
- ii. Smart City Lab (Mechanical Engineering Department)
 - a. Provides training for students of B.Tech courses in Smart City Planning in VR and AR Domain
- iii. Data Analytics and Open Source Language Lab (Computer Science and Engineering Department)

Criterion – II

2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Asst. Professor	Associate Professor	Professor	Others
298	221	40	37	0

2.2 No. of permanent faculty with Ph.D.:

124

2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year

Asst. Professors		Associate Professors		Professors		Others		Total	
R	V	R	V	R	V	R	V	R	V
100	0	5	0	10	0	5	0	120	0

2.4 No. of Guest and Visiting faculty and Temporary faculty

Guest Faculty	Visiting Faculty	Temporary Faculty
8	12	0

2.5 Faculty participation in conferences and symposia

No. of Faculty	International level	National level	State level
Attended Seminars / Workshops	26	66	2
Presented papers	20	09	-
Resource Persons	2	5	7

2.6 Innovative processes adopted by the institution in Teaching and Learning

- i. Extensive use of ICTs for teaching-learning process. Centurion Tablet, loaded with course material, assessment modules, etc. are helpful for learning at students' convenient place, pace and time. A number of simulation software and other technologies have been used in different departments for improving learning.
- ii. New Age Teaching and innovative teaching and learning methods such as peer learning, outside class room learning, project and practice based learning, etc.
- iii. Real world software and other projects from for-profit and not-for-profit enterprises, as a means to learn software development and software engineering.
- iv. Engagement with community and organizations to solve real-life problems through case studies, assignments, projects and internships
- v. It has been decided to have a department wise one to one review/discussion with the HoDs and faculty/mentors in every week (on regular basis) with the Dean of the School
- vi. Student wise back paper data collection and plan for reducing the same
- vii. Refresher class for backlog subjects
- viii. Enabling eco-system for cohabiting and co-learning of youth from different socio-economic backgrounds and educational levels.
- ix. Promoting self-employment through entrepreneurship development programs.
- x. Skill courses imparted to students of all programmes of the University to enhance self-confidence and employability
- xi. Value added courses have been provided. Also courses which are cross cutting such as Gender, Ethics and Human values have been introduced.
- xii. The University has appointed Director – Sports, with an objective to encourage and involve interested students from various schools / campuses of Centurion University to participate in Inter College / District / State / International level. This will also enable the University to have a representation and collaborate for a higher level engagement and recognition in Sports.
- xiii. In all our Centurion campuses, we have provided the facilities for sports like, Table Tennis court, Base Ball, Basket Ball, Cricket, Grass ground to play any out door games, Swimming pool (Bhubaneswar Campus) to name a few.

2.7 Total No. of actual teaching days during this academic year 2018-19:

283

2.8 Examination/Evaluation Reforms initiated by the Institution (for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, On-line Multiple Choice Questions)

- | |
|---|
| <ul style="list-style-type: none"> i. External examinations for labs and projects ii. Introduction of theoretical questions relating to practice in the written examinations iii. Examinations on Demand (EOD) throughout the year for clearing back papers. iv. Bar Coding of University examination answer scripts before evaluation. v. Introduction of online examination scheduling and grading using Examination Management Systems vi. Photocopies of evaluated answer scripts are provided to students to enhance evaluation system transparency. vii. The university is communicating the end examination result to parents through SMS. viii. Publication of result within a month of examination. ix. Continuous cumulative assessments – MBA to help student learning. x. Centurion University has adapted the National Academic Depository (NAD) as per the guidelines of Ministry of Human Resources Development and University Grants Commission. The purpose of implementing is to Digitally secure and Quickly issue Online Academic Awards. to the Students directly in their online account. |
|---|

2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop

Membership in Board of Studies	Participation in Faculty Development Workshop for Revised Curriculum	Participation in Curriculum Development Workshops
43	68	282

2.10 Average percentage of attendance of student's:

82.02%

2.11 Course/Programme wise distribution of pass percentage

Parlakhemundi Campus (B. Tech.)						
Branch	Total Appeared	Total Pass	1st Division	2nd Division	3rd Division	Total Pass %
CE	33	18				54.54
CSE	46	36				78.26
ECE	33	29				87.87
EEE	21	17				80.95
EIE	NA	NA				NA
IT	NA	NA				NA
ME	42	35				83.33
CH	3	2				66.66
TOTAL	178	137				76.96%

Bhubaneswar Campus (B. Tech.)						
Branch	Total Appeared	Total Pass	1st Division	2nd Division	3rd Division	Total Pass %
CE	92	46				50
CSE	124	70				56.45
ECE	39	26				66.66
EEE	26	18				69.23
ME	173	116				67.05
EL	35	16				45.71
TOTAL	489	292				60%

Parlakhemundi Campus (MBA)						
Branch	Total Appeared	Total Pass	1st Division	2nd Division	3rd Division	Total Pass %
MBA	8	8				100

Bhubaneswar Campus (MBA)						
Branch	Total Appeared	Total Pass	1st Division	2nd Division	3rd Division	Total Pass %
MBA	30	26				86.66

Bhubaneswar Campus (M. Tech.)						
Branch	Total Appeared	Total Pass	1st Division	2nd Division	3rd Division	Total Pass %
Communication Systems Engineering	6	4				66.66
Design and Manufacturing Engineering	11	7				64
Power System & Control Engineering	6	4				66.66
Structural Engineering	5	2				40
TOTAL	28	17				61

Total number of Ph.D. awarded during 2018-19:

12

2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes

Student centric learning through Deming Cycle of Plan, Do, Check and Act (PDCA) is encouraged. Faculty members are also being trained to adopt adult learning paradigms of Action-Reflection-Action by stressing project centric and peer based learning. IQAC picks up the best practices through a series of faculty development workshops conducted (like Group Dynamics, Mentoring, IELTS, Identify how to address Research & Proposal making, Gender Sensitization, etc.) for observation in class rooms and formal feedback sessions. Students, Alumni, Industry experts and faculty from other Institutions are co-opted in teaching-learning development process. These approaches are blended with class room teaching based on the feedback received from students, faculty and result analysis. Automat and AMCAT certifications by faculty members certified and Industry Certifications added.

2.13 Initiatives undertaken towards faculty development

Faculty/Staff Development Programmes	Number of faculty benefitted
Refresher courses	14
UGC – Faculty Improvement Programme	13
HRD programme	5
Orientation programme	45
Faculty exchange programme	4
Staff training conducted by the university	280
Staff training conducted by other institutions	32
Summer/Winter schools, Workshops, etc.	35
Others	NA

2.14 Details of Administrative and Technical staff

Category	Number of permanent employees	Number of vacant positions	Number of permanent positions filled during the year	Number of positions filled temporarily
Administrative Staff	315		23	58
Technical Staff	174		14	30

Criterion – III

3. Research, Consultancy and Extension

3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution

- i. A University Task Force (UTF) has been constituted with an external expert as its Chairman along with Directors, Deans and senior faculty from Research, Consulting, Academic programs, Training and Placement and other departments.
- ii. Brain storming sessions of UTF are periodically conducted to identify the themes and topics of research and allocated (along with action plan including resources and responsibility) to respective departments.
- iii. Faculty Development Programmes are regularly arranged to motivate them for improving their capacity in research proposal writing, article writing and presentation.
- iv. Students are encouraged to participate in the workshops organized at various institutions. The university conducts student technical festival in both the campuses.
- v. Weekly seminars are organized with internal and external Professors/Researchers as resource persons to motivate the faculty and students to undertake context specific research activities.
- vi. There has been an initiative for Mentoring and delivering many sessions under faculty development programs on Research proposal and publications with a frequency of once in a week.

3.2 Details regarding major projects

	Completed	On going	Sanctioned	Submitted
Number	8	0	8	8
Outlay in Rs lakhs	1389.88L	0	1389.88L	1389.88L

3.3 Details regarding minor projects

	Completed	On going	Sanctioned	Submitted
Number	7	0	7	7
Outlay in Rs lakhs	65.75L	0	65.75L	65.75L

3.4 Details on research publications

	International	National	Others
Peer Review Journals	345	32	12
Non-Peer Review Journals	0	61	0
e-Journals			
Conference proceedings			

3.5 Details on Impact factor of publications

Range	h-index	Average	Nos. in SCOPUS
	-	-	78

3.6 Research funds sanctioned and received from various funding agencies, industry and other Organisations

Nature of the Project	Duration Academic Year 2018-19	Name of the funding agency	Total amount Sanctioned (in Lakh)	Received (in Lakh)
Major projects	2018-19	RSB GLOBAL, TANGI	13.78	13.78
		CTTC	33.48	33.48
		RSB GLOBAL, DHARWARD	14.45	14.45
		DASSAULT	1037.18	1037.18
		CESU	14.37	14.37
		OST	212.83	212.83
Minor Projects	2018-19	HAL	10.35	10.35
		WESCO	8.11	8.11
		SOUTHCO	8.68	8.68
		GAP	7.37	7.37
		DFID	9.94	9.94
		CINI	3.0	3.0
Industry sponsored	3	EDI, ONGC, SELCO	3.10	3.10
Projects sponsored by the University/College	8	CUTM, University	78.69	78.69
Total			1455.63	1455.63

3.7 No. of books published

With ISBN No	Chapters in Edited Books	Without ISBN No.
2	4	0

3.8 No. of University Departments receiving funds from

UGC-SAP	CAS	DST- FIST	DPE	DBT SCHEME/FUNDS
NIL	NIL	NIL	NIL	NIL

3.9 For colleges

Autonomy	CPE	DBT Star Scheme	INSPIRE	CE	Any Other(specify)
NIL	NIL	NIL	NIL	NIL	NIL

3.10 Revenue generated through consultancy (in Lakhs)

1455.63

3.11 No. of conferences organized by the Institution :

Level	International	National	State	University	College
Number	3	4	4	4	2
Sponsoring agencies	<ol style="list-style-type: none"> Dassault NSDC (National Skill Development Corporation) IAPST (International Conference on Molecular Mechanism of Diseases and novel Therapeutic Approaches) 	<ol style="list-style-type: none"> Institute of Town Planning, India ICMR (Indian Council of Medical Research) CUTM World Vision India 	CUTM	CUTM	CUTM

3.12 No. of faculty served as experts, chairpersons or resource persons

38

3.13 No. of collaborations

International	National	Any other
4	12	

3.14 No. of linkages created during this year

155

3.15 Total budget for research for current year in lakhs

From Funding agency	From Management of University/College	Total
Rs. 375L	Rs. 60L	Rs. 435L

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	17
	Granted	3
International	Applied	0
	Granted	0
Commercialised (3 D Printer)	Applied	0
	Granted	2

3.17 No. of research awards/recognitions received by faculty and research fellows of the institute in the year.

International	National	State	University	District	College	Total
			14			14

3.18 No. of faculty from the Institution: who are Ph.D. Guides

and students registered under them

3.19 No. of Ph.D. awarded by faculty from the Institution

3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)

JRF	SRF	Project Fellows	Any other
20	0	0	17

3.21 No. of students Participated in NSS events

University level	State level	National level	International level
42	17	10	NIL

3.22 No. of students participated in NCC events

University level	State level	National level	International level
07	05	NIL	NIL

3.23 No. of Awards won in NSS

University level	State level	National level	International level
NIL	NIL	NIL	NIL

3.24 No. of Awards won in NCC

University level	State level	National level	International level
NIL	NIL	NIL	NIL

3.25 No. of Extension activities organized

University forum	College forum	NCC	NSS	Any other
21	27	07	17	30

3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility

Innovation Camp

- Start-up boot camp
- Entrepreneurship camp
- Blood donation camp
- Organ & Body Donation camp
- Community visit
- Awareness on Open-defecation
- Cleaning campaign
- Eye donation camp
- Plantation initiative
- Solid waste management
- Electronics waste management
- Health check-up camp
- Eye check-up camp
- Important day celebration at social organisation
- Free drug distribution camp
- Pathological investigation camp

For more details refer to below link: Annual CSR report 2018-19

(<https://www.cutm.ac.in/students/CSR-REPORT18-19.pdf>)

Mega Voluntary Blood Donation Camp on 29th September 18 on Bhubaneswar campus organised on the occasion of Surgical Strike Day. We have donated a record breaking 382 Units of Blood (highest ever units of blood collection at CUTM at a single camp) at the 17th Blood drive of our campus, which was inaugurated by Dr. Ardhendu Mouli Mohanty (Pro VC, CUTM), Prof. Jagannath Padhi (Director, CUTM, BBSR Campus), General R C Padhi (Emeritus Professor, Dept. of Civil) in presence other dignitaries. Special mention to "Jiban Bindu" for providing all the support & gift for all the donors.

20 Centurions visited and celebrated in a unique way at Adrut Children's Home, Gadakana, Mancheswar, Bhubaneswar (has been doing pioneering work in the field of rehabilitation of the abandoned, unclaimed, parentless and destitute children, especially girl children, in need of care and protection).

Showcase Street Play & Flash Mob under the theme "SWACHH CENTURION (Clean & Green Campus) & SWASTH CENTURION (Anti Pan, Gutka, Tobacco, and Alcohol)".

Health Club is organizing a Vision check-up, & Health check-up Camp as per the following details. It is a joint initiative by the School of Pharmacy & Life Sciences and School of Paramedics & Allied Health Sciences. On 25th Aug 2018.

The Vision check-up and Health check-up Camp is organized by the School of Pharmacy & Life Sciences and School of Paramedics & Allied Health Sciences. More than 50 numbers of students, staff, and faculties benefited due of the initiative.

MADHUR MAYEE ADARSH SIKSHA NIKETAN, Near Special Jail, Jharapada, Bhubaneswar on 11th Aug 18.

Cultural & Responsibility initiative, the Dramatic & Dance Club performed Nukkad Natak (Street Theater) & Flash Mob respectively under the theme "Women Empowerment".

National Voluntary Blood Donation Day is celebrated in India on 1st of October every year to share the need and importance of the blood in the life of an individual. The State Blood Transfusion Council (SBTC) & Indian Red Cross Society, Odisha State Branch (IRCS-OSB) is going to observe the Day on 1st October 2018 by organising a Mass Rally from Exhibition Ground, Unit-3, Bhubaneswar at 7 AM which will culminate at 9 AM at Jayadev Bhavan, Bhubaneswar with the aim to generate awareness on safe blood and to promote Voluntary Blood Donation among the general public.

A total of 74 members present at the celebration of Raksha Bandhan. We celebrated the event with people irrespective of gender. Students even visited to Main Gate, Girls Hostel and Library as the persons responsible for Security at these positions cannot leave their places.

National Sports Day is celebrated on August 29. To celebrate the occasion we planned to have a Micro Marathon Race on our campus on 29th August 2018.

5-Days Workshop on "Eco-Craft" in the month of September 18 on our campus. The training will be given by the experienced trainers of Wellpaper, Auroville, Tamilnadu. The trainers will train how to create eco-friendly handicraft by using different kinds of waste mainly newspaper. Its take 5 days and making different types of craft items some photos of these items.

To celebrate the Jayanti Divas of Iron Man of India, Sardar Ballav Bhai Patel, an event "RUN FOR UNITY" is organised on 31st October 2018 at 6:15 AM from Mancheswar Railway Station to East Coast Railway Auditorium.

We are extremely happy to share our unique Green Diwali celebration experience today with the residents of Mission Ashra (Working for the cause, care and concern of mentally ill and mentally challenged destitute women: Today we had a wonderful day at Mission Ashra. 30 Centurions went to Mission Ashra along with 50 plant saplings. We had planted the saplings inside the campus of Mission Ashra, Eco friendly & Green Diwali celebration. All the members of Mission Ashra appreciated the initiative.

National Education Day of India is celebrated on 11 November the birth anniversary of Maulana Abul Kalam Azad, the first education minister of independent India.

Each year 14th November 2018 is being celebrated as World Diabetes Day for creating awareness campaign focusing on Diabetes Mellitus. Different type's blood sugar and preventive measures to be taken.

World AIDS Day is observed on 1st December every year. This year, OSACS (Orissa State AIDS Control Society) is planning to observe World AIDS Day-2018 at state level with its partner organizations.

FEST (Bhubaneswar City Festival) is a City celebration for the Odisha Men's World Cup Hockey 2018 from 1st December to 16th December 2018.

Centurions celebrated International Volunteers Day on 5th December 2018 participating in the competitions and event organised at Redcross Bhawan, Bhubaneswar.

The Waste to Wealth Innovation Initiative of our University in collaboration with India Craft Nation (ICN) showcased the artistic talent in front of thousands of people.

International story- She is Ms. Wangari Grace, an international story teller from Kenya.

Tata Steel Bhubaneswar Half Marathon – 13th January 2019.

Birthday of Swami Vivekananda (National Youth Day) in a unique way at Ashraya Children's Home, Dumduma, Bhubaneswar.

5 days Workshop on "Internet of Things" on 19th January 2019.

70th Republic Day was celebrated in CUTM, Bhubaneswar Campus.

Celebration of National Street Children Day on 31st January 2019 at Ekamra Haat, Bhubaneswar.

2 Days' Workshop on "Robotics" on 26th feb 2019.

Nearly 44 CRPF personnel were killed and many others injured when terrorists targeted a convoy with a car bomb at Awantipora in Jammu and Kashmir's Pulwama district.

We have celebrated the International Women's Day.

Mega Voluntary Blood Donation Camp today on 16th March 19 on our campus. We have donated 283 units. (382 UNITS collected on 29.09.18 + 283 UNITS collected on 16.03.19) total 665 UNITS.

Criterion – IV

4. Infrastructure and Learning Resources

4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area (in Acres)	201.33 Acres	0	CUTM	201.33
Class rooms	240	32	CUTM	272
Laboratories	231	14	CUTM	245
Seminar Halls	27	1	CUTM	28
No. of important equipment purchased (\geq 1-0 lakh) during the current year.	273	91	CUTM	364
Value of the equipment purchased during the year (Rs. in Lakhs)	Rs.2893.75 L	893.80 L	CUTM	3787.55 L
Others	NIL	NIL	NIL	NIL

4.2 Computerization of administration and library:

- i. The ERP portal, a portal for recording all process information of the University is maintained by the MIS cell. This portal caters to the needs of students, faculty, administration, stores, exam cell, library, accounts and other staff.
- ii. The library functions completely on computerized ERP system. The book issue and return processes are entirely done through ERP. Members have access to view book availability in the Library online through their ERP id. The search can be through title, author, publisher, Accession No., etc. The Library has computers with internet connectivity for online journal access by staff/students.
- iii. J-Store, ASME, IEEE, DELNET, Shoudh Ganga are the e-resource databases which we are using for our students to access.
- iv. As per UGC guideline the university has installed the Turnitin for a similarity checking of Research articles, project proposal and thesis.

4.3 Library services

	Existing		Newly added		Total	
	No.	Value (Rs lakhs)	No.	Value (Rs lakhs)	No.	Value (Rs lakhs)
Text Books	84237	436.4	946	44.30	85183	480.7
Reference Books	25266	160.02	565	74.36	25831	234.38
e-Books (Available in Subscribed resources (NLIST, DELNET))	7,00,000	48,970	17,00,000	13,500	2400000	.6
Journals	163	3.71	43	2.34	206	6.05
e-Journals (IEEE ASPP, Elsevier, ASME, JSTOR, J gate)	As per subscriptions	18.18	As per subscriptions	18,56,428	-	-
Digital Database	17,607,617 items available	Rs.48,970/- Dlenet / NDL os free	NDL, NPTEL, DEL NET	13,500	-	-
CD & Video	3067	-	233	-	3300	-

4.4 Technology up-gradation

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Others
Existing	1322	17	1Gbps	Yes	Yes	Yes	Yes	
Added	40	3		Yes	Yes	Yes	Yes	
Total	1362	20	1Gbps					

4.5 Computer, Internet access, training to teachers and students and any other programme for technology

Up-gradation (Networking, e-Governance etc.)

- i. All faculty and staff members have been provided computers with internet facility. Faculty uses it to access e-resources for teaching and research. This is also necessary for access and availability of ERP.
- ii. Orientation programs on ERP, MIS, WEB portal and mail server for all lab in- charges and technical staff are periodically organized.
- iii. Orientation program on use of UBUNTU and other Open Source Software including those for Graphics and Word Processing are periodically held.
- iv. Orientation programs are organized for the benefit of the 1st year students on the use of ERP portal and also on curriculum related aspects at the beginning of the Academic Year.
- v. Mobile App for ERP introduced.

4.6 Amount spent on maintenance (Rs lakh)

ICT	Campus Infrastructure and facilities	Equipment	Others	Total
Rs 24.17L	Rs 246.87L	Rs 33.65L	Rs 34.61L	Rs 339.30L

- Total Revenue Receipt : Rs. 102.9 Crores
- i. Salary component : Rs. 32.19 Crores
 - ii. Principal & Interest : Rs. 24.01 Crores
Payment on loan
 - iii. Maintenance, food, etc. : Rs. 32.01 Crores
 - iv. Transport : Rs. 3.16 Crores
 - v. 5 Axis Machine : Rs. 0.12 Crore
 - vi. ARVR Lab : Rs. 0.125 Crore
 - vii. Transformer Lab : Rs. 2.72 Crores
 - viii. Others : Rs. 8.66 Crores

Criterion – V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

- i. Based on the feedback collected by the IQAC from the students, changes are periodically made in the content of the support services in the CUTM website.
- ii. IQAC also informs students proactively and continuously about the need, process, output and outcome of the Curriculum development, Curriculum delivery and Assessment process.
- iii. Students' contribution in Curriculum development, Curriculum delivery and Assessment process through feedback mechanism and workshops is actively pursued.
- iv. Orientation of students through campus tour to various industry and skill level done at the beginning of the programme.
- v. Dissemination of information regarding the Academic and Examination Rules is carried out during induction programs for the benefit of newly admitted students.
- vi. Involvement of students in life-skill development, community engagement, training and placement process is sought through student specific competency gap analysis, feedback, mentoring and counselling.
- vii. Mobilizing students for Anti – ragging registration.
- viii. Student awareness program on sexual harassment
- ix. Faculty Development workshop
 - Counseling sessions

5.2 Efforts made by the institution for tracking the progression

- i. The University monitors the progress of students in four dimensions, such as Professionalism, Communication Skill, Presentation Skill, World View and Domain Knowledge.
- ii. Through use of ICT systems (like ERP), the University records, processes and disseminates the progress of students to students, parents, teachers and administrators.
- iii. The Mentor prepare career plan for each of their students. The baseline test is done and then a plan is prepared for the student's semester wise to progress and reach the desired/ aspired level so as to get job in the organisation they have aspired for/ pursue higher studies in their institute. This helps the tracking of the progress of the student semester wise.
- iv. The culture sports and responsibility (CSR) cell of the University, through it 20-odd club continuously strives to engage students in curricular and extra-curricular activities of their liking.
- v. Plan to take a pledge / undertaking of stay away from all forms of intoxicants: An undertaking from all existing and future joining students should ensure that he/ she shall not consume gutka/pan/alcohol/cigarettes or any other forms of intoxicants in campuses/centres or enter to campus/centre/premises under the influence of intoxicants.

Self-defence training of girl students for a duration of 23days conducted.

It is observed that many students are violating dress code rule and not following class timings. These are monitored strictly and the defaulters are punished.

5.3 (a) Total Number of students

UG	PG	PhD	Others
1137	680	59	221

(b) No. of students outside the state 281

(c) No. of international students 6

MEN		WOMEN	
Number	%	Number	%
1210	57.72	887	42.27

Last Year						This Year					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
1028	115	54	606	0	1803	1491	122	50	875	0	2538

Demand ratio: 1.4

Dropout (%): 0.8

5.4 Details of student support mechanism for coaching for competitive examinations (If any)

- i. Regular coaching of students for GATE examination
- ii. Continuous and rigorous assessment through industry acclaimed and adopted
- iii. Testing platforms of Aspiring Minds (AMCAT), JRF and NET.
- iv. Continuous grading and assessment internally on a 10-point Trump Cards' grid
- v. For customised training and coaching for competitive exams like GATE, Civil Services, IES and Bank PO Exams.

No. of student's beneficiaries 793

5.5 No. of students qualified in these examinations

NET	3	SET/SLET	NIL	GATE	5	CAT	NIL
IAS/IPS	NIL	State PSC	NIL	UPSC	NIL	Others	55

5.6 Details of student counselling and career guidance

- i. For personal counseling, the university adopts a mentor and mentee system. For every 15 to 20 students a teacher acts as a mentor to counsel and guide the students in his/her chosen career.
- ii. Student specific career plan and student specific course completion plan are developed and monitored by faculty mentors.
- iii. Regular review of student mentorship by the Senior Management Team members is taken up.
- iv. Regular career counseling and grooming by external resource persons are undertaken.
- v. Life skill development through regular involvement in culture, sports and socially responsible activities with the communities inside and outside the university are undertaken.
- vi. Remedial classes organized for students to clear the backlog papers.
- vii. Introduced Japanese Language training to enhance career opportunities and projects for students.
- viii. Counselling cell introduced for addressing mental health issues.

To carve each Centurion out as a dynamic, adaptive, and competent "Ready for Industry" professional, Career Development Team is launching a new customized model for training and placement. This new model endeavors to achieve the following:

- i. Customized placement oriented training by mapping students' skills to industry needs.
- ii. Continuous evaluation with a reward-penalty mechanism to foster meritocracy & excellence. Salient points of the model:-
 - i. Students will be divided into three different bands (A, B, & C).
 - ii. Band A is highest, next is Band B followed by Band C.
 - iii. Depending on the performance, the students will be promoted or demoted across the bands.
 - iv. Band A, B, and C will have ten-point trump card to play with

No. of students benefitted 597

5.7 Details of campus placement

<i>On campus</i>			<i>Off Campus</i>
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
107	1350	565	45

5.8 Details of gender sensitization programmes

<p>i. The policy against Sexual Harassment of Women in Workplace (Prevention, Prohibition and Redressal) has been put up in the website of the University. The names of the Internal Complaints Committee Members are displayed in all the key buildings of the University.</p> <p>ii. Gender sensitization is a regular feature in the induction programs of new students, faculty and staff. Additionally, workshops are undertaken at regular intervals to discuss various aspects of creating and maintaining a community in which students, teachers and nonteaching staff can work together in an environment free of violence, harassment, exploitation, and intimidation. This includes all forms of gender related violence, sexual harassment, workspace etiquettes and discrimination on the basis of sex/gender.</p> <p>iii. While CUTM is committed to the right to freedom of expression and association, it strongly promotes gender equality and opposes any form of gender discrimination and violence.</p> <p>iv. Gender Champions: As per UGC Guidelines University has selected 12 gender champions and they have been instrumental in gender sensitization and culture building.</p> <p>Details of the activities are provided in 3.26 for your reference and information</p>

5.9 Students Activities

5.9.1 No. of students participated in Sports, Games and other events

State/ University level	National level	International level
297	NIL	NIL

No. of students participated in cultural events

State/ University level	National level	International level
760	34	NIL

5.9.2 No. of medals /awards won by students in Sports, Games and other events

	State/ University level	National level	International level
Sports	55	NIL	NIL
Cultural	47	NIL	NIL

5.10 Scholarships and Financial Support

	Number of students	Amount (in lakh)
Financial support from institution	1124	Rs.2,44,44,695/-
Financial support from government	652	Rs.79,17,250/-
Financial support from other sources	3	Rs.2,54,500/-
Number of students who received International / National recognitions	N.A	

5.11 Student organised / Initiatives

	State / University level	National level	International level
Fairs	26	02	NIL
Exhibition	19	02	NIL

5.12 No. of social initiatives undertaken by the students

83

5.13 Major grievances of students (if any) redressed:

- i. The access points for enabling Wi-Fi facility was installed in all hostels.
- ii. Enhanced the speed of internet from 4 MBPS to 155 MBPS.
- iii. Extracurricular activities increased. Intercollege sports competitions organised.
- iv. The access points for enabling WIFI facility was installed in all hostels.
- v. Student feedback survey

Criterion – VI

6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

VISION

- i. Provision of quality, globally accredited academic programmes in Technology and Management.
- ii. Provision of globally accredited employability training for less endowed segments of the population.
- iii. Promotion of entrepreneurial culture and enterprise in the target areas.
- iv. Facilitating improved market access to goods and financial services to the target population.
- v. Promotion of lighthouse project interventions in the target area.

MISSION

A globally accredited human resource centre of excellence catalysing sustainable livelihoods in the less developed markets across the globe

Orientation of the University

- i. Learning: Hands on, Experience based and Practice oriented
- ii. Ideas: Make a difference through appropriate and relevant innovation and actionable research.
- iii. Value: Shaping Lives, Empowering Communities and creating Nano, Mini and Micro enterprises.
- iv. Experience: Quantifiable, Sustainable, Scalable and Replicable while striving to create a sense of ultimate delight among all stakeholders.
- v. Application oriented and industry oriented training were conducted in campuses.

6.2 Does the Institution has a Management Information System

The University has a MIS that caters to all its needs. The key components of the MIS software include

- i. Faculty information
- ii. Student information
- iii. Course (Academic Planning & Delivery) Management
- iv. Examination Management & Online Test Management
- v. Placement Information
- vi. Library Management
- vii. Hostel Management System
- viii. E-Notification System
- ix. Help Desk
- x. Opinion Poll System
- xi. Supporting departmental Information (accounts, audit, utility, residential, sports, general administration, operation and maintenance)
- xii. Assets' information
- xiii. Academic Delivery and assessment information

IQAC has representation from all constituent units of the University who are responsible for data acquisition, analysis, sharing and feedback.

6.3 Quality improvement strategies adopted by the institution for each of the following

6.3.1 Curriculum Development

- i. To ensure relevance of the curriculum to the needs of the society in general and state, market and civil society organisations in particular, a participatory approach is followed for need analysis, curriculum design, delivery and assessment.
- ii. All stakeholders including members of alumni, industry, sector skill councils, academics and researchers in the relevant disciplines are systematically included in the curriculum development.
- iii. In a structured manner, draft curriculum, delivery and assessment processes are discussed in the Faculty Council, Board of Studies and Academic Council before finalization.
- iv. Modular design, continuous assessment and feedback to students and faculty, optimal mix of class room and experiential learning through projects and internships are ensured for desired quality.

6.3.2 Teaching and Learning

- i. Every course has specific objective, session plan, learning material, teaching and learning method, continuous assessment and feedback system (to and from students), expected outcome and result analysis.
- ii. Student centric learning is practiced through use of ICT. Systems and facilities are in place for students to learn at their pace, time and place of convenience.
- iii. Process based approach is followed for ensuring quality teaching and learning. Specific methods being practiced inside and outside class rooms include learning by listening (lectures), learning by observing (video, models, experiment, field visits), learning by doing (experiment, simulation, project, field action) and learning by discovery (action research). Context specific learning, peer group learning, team learning and learning with community are encouraged.
- iv. Exposure to students using AR / VR lab and having a visual oriented learning of the topic/subject which will help the students for effective learning.
- v. Provide an opportunity for doing their internship with other state University students and graduates by giving an exposure to their work environment, often within a specific industry or domain, which relates to their field of study.
- vi. Exposure visits is also provided to students and other school students, Institute and Universities to facilitate learning and orient the lab based applications. It provides them to learn the best practices. The students also learn mutually from each other during the course of interaction.

6.3.3 Examination and Evaluation

At CUTM, process of examination and evaluation is considered a part of learning process. Some of the key features of examination and evaluation are

- i. Continuous assessment
- ii. Questions are designed to assess conceptual understanding, comprehension, application and analytical ability
- iii. Continuous feedback to students and faculty
- iv. Peer assessment
- v. Transparency in assessment
- vi. Application of ICT in assessment and reporting
- vii. Adequate opportunities and timely redressal of students' grievances

6.3.4 Research and Development

- i. Each Department/School identifies the broad areas of research considering University's geographic and socio-economic context. Accordingly, lab, workshop, library and financial resource are allocated, and industry and community linkages are established.
- ii. University Task Force (UTF) supports the faculty in development of specific project proposals and obtaining funds, either internally or externally. A peer group reviews every proposal before it is approved. Once the project is approved, the research team makes periodic presentation of progress made and receives feedback for improvement.
- iii. Student research, including that of doctoral program, is an important part of CUTM's overall R&D program. All these research activities follow a systematic process, wherein every student defends a research proposal and works according to the steps articulated and approved in the proposal.
- iv. The University incentivises R & D activities among faculty members by providing publication incentives, paid leaves and conducting the programmes on areas of focused research.

6.3.5 Library, ICT and physical infrastructure/instrumentation

- i. Ease of access to library and other infrastructural facilities are ensured through intensive use of ICT.
- ii. Library has adequate e-content, e-journals, e-books and digital database
- iii. High speed campus-wide internet and intranet enabling data access.
- iv. Tutorial classes and coaching provided as and when required

6.3.6 Human Resource Management

- i. University follows open and all India search for faculty and key administrative resources.
- ii. Specific attention is given to ensure diversity of human resources (gender, religion, language, caste, etc.)
- iii. For ease of access by potential faculty, e-application is encouraged
- iv. Wide publicity for recruitment and promotion is given through website, electronic and print media
- v. The university has allocated budget for skill development. It deposes faculty to national or international institution of repute.
- vi. Performance based incentive system is in place for encouraging faculty
- vii. Grievance redressal of employee from time to time and support during an event.
- viii. Publication incentives, SEED money Grants, Funding to attend conferences, Seminars, Workshops and FDPs

6.3.7 Faculty and Staff Recruitment

- i. Faculty and staff are recruited through a systematic need assessment process. Adequate mix of people from academia and industry is the norm. The HR Department generates application through peer solicitation, advertisement and invitation. However, all the faculty go through a standard recruitment process including presentation in front of the faculty and students, and interview by a panel of experts.
- ii. Further to get more information hosting the e-advertisement in our CUTM website with under *careers@cutm.ac.in*

6.3.8 Industry Interaction / Collaboration

- i. The University facilitates platforms for effective industry interaction in developing course curricula, offering value added courses, imparting skill based training, participation through seminar, workshop, faculty development program, management development program, students visit to industry, faculty visit to industry through summer immersion programme, consulting, working together for social project.
- ii. The University has created a University- Industry Partnership Cell to have more industry- institute interaction for shared Objectives.
- iii. Regional managers in different parts of the country are in place to strengthen the industry-academia interaction.
- iv. CUTM believes in dynamic engagement with its stake holders and communities at large. To achieve this purpose, the University has incubated many social enterprises, social entrepreneurs, and outreach entities under the umbrella of Gram Tarang. Its incubated organizations work in the area of skills, financial inclusion, urban micro-business services, entrepreneurship, tribal development, food processing and agriculture. It includes Gram Tarang Employability Training Services (GTETS), Gram Tarang Inclusive Development Services (GTIDS), and Gram Tarang Foods (GTF), Urban Micro- Business Center (UMBC), Last Mile Distribution Company (LMSC) and Ratnakar Bank (RB). GTETS, GTIDS, GTF and LMSC are registered as for-profit private company under Company Act. UMBC and LMDC are registered as Section 8, not-for-profit Company. RB is registered as a Non-Banking Finance Company (NBFC). The reaches of these organisations span across India and they provide learning labs to the students and faculty of the University.
- v. GramTarang Technologies is focused on 3D Engineering design Technologies across diverse industries like automotive, aerospace, architecture smart city & urban planning, mining and Agri & material sciences.
- vi. The Solutions and Services support MNC's as a strategic partner across India by providing high-end customer solutions from concept to design and are also involved with turnkey high-end skill programs with state governments.
- vii. GramTarang Technologies is partnered with skilled development corporations of Multiple state governments to provide training on High-end design software.
- viii. Our dedicated team of 130 engineers is working on next-gen software across mechanical, civil and software disciplines on 3D & AR/VR technologies, focusing on the growth of architecture, engineering, and construction verticals

6.3.9 Admission of Students

<ol style="list-style-type: none">i. The Courses offered by Centurion University are widely publicised through bill boards, electronic and print media, social media and internet.ii. The transparency in the admission process is ensured by clearly indicating number of seats available, eligibility criteria and the process of admission.iii. The University does not charge capitation fee. Affirmative principle is followed for inclusive admission.iv. Candidates seeking admission to CUTM courses come through different entrance examinations, including Centurion University Entrance Examination (CUEE), conducted by the University.v. Students can apply online or offline to the University. Seat allocation is done purely on merit basis i.e. based on the performance in the Entrance Examination. Counselling.vi. Schedule is published in the Centurion University Website on the day of declaration of result itself.vii. Candidates have to attend the counselling as per the schedule. Counselling is stopped as soon as all the seats reserved for the Centurion University are filled up.viii. Reports about the results of Counselling and Admissions are then sent to respective constituent campuses as per the allotment.

6.4 Welfare schemes for

Teaching, Non-Teaching and Students	<ol style="list-style-type: none">i. Provision of the medical insurance and basic outdoor consultation by the doctor at the campus.ii. Yoga and Meditation practices in the campusiii. Canteen services in the campusiv. Accommodation in the campusv. ATM, GYM, Swimming pool and other sports facilities in the campusvi. Transport services for off-campus and on-campus residents.
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6.5 Total corpus fund generated (Rs. Lakhs)

Rs. 361.99

6.6 Whether annual financial audit has been done

Yes

No

6.7 Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Y	Faculty Team from Other Campus	Y	IQAC
Administrative	Y	Registrar	Y	Registrar

The Academic Audit Report is attached in Annex-IV.

- Internal Lab Audit by 6 faculty members – MSSSOA (4th and 5th Oct 2018)
By Dr. S.K. Biswal (Convener) – C1, Mr. G K Sahu (Convener) – C2

6.8 Does the University/ Autonomous College declares results within 30 days?

For UG Programmes Yes Y No

For PG Programmes Yes Y No

6.9 What efforts are made by the University/ Autonomous College for Examination Reforms?

The Senior Management Team, which meets once in every two months is the key driver of examination reform process. Aligning assessment systems with the NSQF and skills development has been undertaken seriously.

The following are the ideas generated by this assessment:

- i. Experimenting with open book exams for semester exams.
- ii. Introducing external examinations for labs and projects.
- iii. Introducing theoretical questions relating to practice in the written examinations.
- iv. Examinations on demand through the year for backlog/improvement exams.
- v. Relative grading over absolute grading after examining the pattern for a few years.
- vi. Automating exam scheduling and grading using Examination Management Systems.

6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?

Not Applicable

6.11 Activities and support from the Alumni Association

The alumni association of CUTM, namely, AAJ (Alumni Association of Jagannath Institute for Technology & Management or JITM) was formed in the year of 2008 with a very small group of Alumni of the University's constituent unit JITM. It was officially registered in 2008.

- i. AAJ collects all relevant information from alumni on challenges and technology trends in industry for curriculum development.
- ii. It facilitates smooth transition of students from academic environment to industry setting through their involvement in teaching, grooming, internship and placement support.

6.12 Activities and support from the Parent – Teacher Association

- i. CUTM solicits support from parents for making their wards active in learning, accepting advices for professional and personal development which may not be easy to accept. A formal Parents' meet is organised once a year.
- ii. Access to the University's ERP is provided to parents for monitoring progress of their wards and contacting concerned faculty mentor for required deliberation.
- iii. Parents meeting held once a semester. The Deans (Academics and administration) explained the programmes under taken during the year including facilities, infrastructure developed and initiatives for students wellbeing and employment. The feedback of the parents are analysed and University tries to take the constructive suggestions forwards.
- iv. Both on-campus and off-campus Parent-Teacher meets are organized, twice an academic year, for maximizing participation of parents.
- v. Access to the University's ERP is provided to parents for monitoring progress of their wards and contacting concerned faculty mentor for required deliberation.

6.13 Development programmes for support staff

- i. CUTM provides need-based skill training of its supporting staff members and encourages them in their career progression. There are several examples of individuals starting their career at lower level and rising up in the hierarchy.
- ii. The University honours the Best Supporting Staff with awards and cash prizes every year.

6.14 Initiatives taken by the institution to make the campus eco-friendly

Some of the eco-friendly initiatives at CUTM include:

- i. Tobacco and alcohol free campus
- ii. Plastic bag free campus
- iii. Conversion of kitchen and biodegradable waste into bio fertiliser
- iv. Plantation of trees, especially endangered species
- v. Regular cleanliness drive involving students, faculty and staff
- vi. Soil Conservation through plantation and contour development
- vii. Rain water harvesting
- viii. Energy Management practices (using LED lights on streets, use of 5-star appliances, regular energy audit of the campus)
- ix. Regular awareness drive and competition by Green Club
- x. Erection of Grid interactive solar power plant of half a Megawatt capacity each in its Bhubaneswar and Parlakhemundi campuses.
- xi. Sewage water treatment plant.

Criterion – VII

7. Innovations and Best Practices

7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the institution. Give details.

Innovation in curriculum:

- i. Choice Based Credit System in all B.Sc. Courses offered by School of Applied Sciences
- ii. Skill integration in all Courses
- iii. Designed B. Sc. and M. Sc. Courses in Forensic Sciences
- iv. Introduction of Learning Records for all theory and practice courses.
- v. Innovation Agriculture is funded by National Skill Development Corporation.

Innovations in Training & Placement:

- i. Centre of Excellence in Apparel Design, Production and Training Established
- ii. Summer Immersion for Faculty Members
- iii. Entrepreneurship in Organic Agriculture among students
- iv. Industry oriented training programme for faculty and students
- v. Domain based teaching and learning in collaboration with industry partners for B. Tech. program

Innovations in Research and Development and extension:

- i. Knowledge on Wheels (KNOW) on Bharat Standard-6 (BS-6) to impart training on repairing of BS-6 Diesel engines
- ii. Successful launch of e-rickshaw entrepreneurship project under Gram Tarang Incubation Centre
- iii. Product development, application in the field and patenting in solar energy area
- iv. Diffusion of innovation in bio fertiliser production to farmers

Innovations in Institution Development:

- i. Pan-India service diversification: Incorporation of Skill Assessment Cell of the University
- ii. Having fulfilled all the conditions stipulated under National Employability Enhancement Mission (NEEM) 2017, Centurion University has been recognized as NEEM facilitator. Thus, the University can offer on the job practical training to enhance the employability of a person either pursuing or discontinued his/her graduation/diploma in any technical/non-technical stream, anywhere in the Country.

7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year

The Academic Audit Report is attached in *Annex IV*.

7.3 Give two Best Practices of the institution

- i. Use of ICT in Teaching Pedagogy & Skill development as a part of curriculum
- ii. Skill Integration in Curricula
- iii. Community Outreach
- iv. CUTM Qualification Frame Work
- v. Labs are used for project and project leading to production.

7.4 Contribution to environmental awareness / protection

- i. Steps towards afforestation and development of a forest-like ecosystem ensuring biodiversity through plantation of different shrubs, herbs and plants.
- ii. Water harvesting, contour bunds, soak pits, check dams, recycling of effluents
- iii. Drip Irrigation and sprinkler watering are used wherever feasible.
- iv. Solar cell powered LED lights on streets, use of 5-star appliances, regular energy audit of the campus.
- v. Plastic bag free campus.
- vi. Encouraging entrepreneurship in Organic Agriculture among students
- vii. Farmer Training Camps for encouraging Organic Farming and Soil Conservation.
- viii. Green Club activity
- ix. Rain water harvesting, Soil conservation practices.
- x. Food Waste of hostel mess converted to compost for organic farming on campus.
- xi. Production of bio fertilizer and bio pesticide and use in the gardens
- xii. Knowledge on Wheels (KNOW) on Bharat Standard-6 (BS-6) to impart training on repairing of BS-6 Diesel engines.
- xiii. Sewage Treatment Plants have been put up at both campuses and the recycled water is used for agriculture field work and watering the garden.
- xiv. Through 'Suryamitra Skill development programme' and Clean energy entrepreneurship development programme the center for renewable energy and environment has developed 620 skilled work force in the field of Solar plant installation and 30 clean energy entrepreneurs in Odisha.
- xv. Solar LED 18 Watts street lights and 60 Watts panel lights and 20 AH LIP O4 are installed to the extent of 240 no's CUTM campus and 180 in JITM campus. We have LED strip lights of 900meters installed in all walkways of CUTM.
- xvi. Fire safety – Installation of smoke alarms and safety equipment's in every building inside the Campus. We are testing as a part fire safety the functioning of smoke alarms by conducting mock drills every month.

7.5 Whether environmental audit was conducted? Yes Y No

7.6 Any other relevant information the institution wishes to add

Please refer to SWOC Analysis of the University in *Annex VI*

8. Plans of institution for next year

- i. The University will offer new programs such as M.Phil. in Physics, Chemistry and Mathematics; Certificate courses in Medical Lab Technician (MLT),
- ii. Intensive training on world view, communication and life skill will be provided to students.
- iii. Student and faculty research will be in the areas relevant to the needs of community and industry.
- iv. Consulting assignments in the area of community institution building will be taken up.
- v. Consolidation of Domain based teaching for all engineering programs and introduction of new domain Courses.
- vi. Skill development program by Centre for Renewable Energy and Environment
- vii. The University will have process innovation in new-age teaching-learning methods for teachers and students.
- viii. The University will be a repository of context specific knowledge of its natural, socio- cultural, economic and ecological environment.
- ix. Each School of the University (engineering, management, natural science, social science, vocational education, architecture and planning) will have at least 2 adjunct faculty from industry/Research Institutes.
- x. It will have a student strength of 2,500/year for graduate and higher education and 20,000/year for skill development of school dropouts.
- xi. At the beginning of each session, conduct all tests (such as CoCubes Employability Test) + communication skill test every year and send the score card to parents with suggestive remedies; conduct the final Test at the end of the year and link this test to the student's transcript.
- xii. Job linkages, building appropriate and relevant competencies and confidence are not job of a division. The ecosystem must be redefined and re-crafted. Weeding out non-serious elements is very important but also capturing the aspirations of Students for higher studies, or supporting family business or entrepreneurship must be the part of CDG. Such a data base would be helpful for the University and they would be linked to Centre for Innovators and Entrepreneurs.
- xiii. Application of Block Chain technology in agriculture and learning records
- xiv. Altair Hypermesh will be utilized for modelling and simulation of different systems related to mechanical, civil and electrical engineering
- xv. Biovia discovery studio module will be used for draft design and aptamer design. Biovia material studio will be used for different inorganic, organic composites and smart material.
- xvi. Biovia pipeline pilot will be used for image analysis applications such as determination of crop health using images captured by drones (hyper spectral images captured by drones). Biovia pipeline pilot will be used for image analysis application such as crop health determination by analyzing pictures taken by drone. It will also be used for Machine learning application (such artificial neural network and deep learning).
- xvii. Plan to use Geovia and Enovia for different mining applications
- xviii. 3D experience tools such as CATIA, SIMULIA, DELMIA will be used for new product design and development (Mobility applications). DYMOLA will be used for electrical circuit analysis
- xix. Various lab experiments, gaming applications and learning applications will be developed using AR/ VR and UNITE.

We envision how Centurion will look like in next 3 years:

- Centurion University, in totality, will have a full-fledged health services school offering optometry, radiology, MLT, cardio assistant, ophthalmic assistant, anaesthesia assistant and OT technician. Robert Bosch, Essilor or Carl Zeiss and a few hospitals will be partners. We may have to partner with or own a couple of small 100 bed hospitals. Locally at least, in this region, we will be the pioneers. We are the only non- medical University now focusing on this. This may become the flagship programme in Vizag campus, it may contribute numbers to BBSR and it will be weak in PKD.
- BBSR campus will be dominated by School of Applied Sciences and supported by School of Engineering and Applied Health. Whereas, Paralakhemundi campus will be dominated by Agriculture, Fisheries and Allied programmes along with Agriculture Engineering. Again, we are pioneers in this regionally at least. We need to support this position.
- School of Engineering will play a second fiddle in all campuses, in terms of volumes and numbers. But it will be a crucial zig in the puzzle. So will be the vocational school. School of Engineering and Technology needs to be integrated within itself as well as other schools. TECHNOLOGY will be the common THREAD of all what we do.
- School of Management and Media School will limp along. BBA and B.Com have great potential and we can do numbers there. We are not focusing much.
- Placement and all others have to look at this emerging scenario. We need to look at the placement for health sectors, agriculture, fisheries, etc.
- The traditional drivers of Private sector education, i.e. Engineering and MBA, will at least, temporarily take a back seat. We need to be prepared for that. The SMT time also now needs to be recalibrated to reflect this reality. Especially placement team's time. Even post-graduate schools will be most dominated by these areas. We need to strengthen labs.
- We need to have an OPEN Architecture to syllabus making. The structure will be like a platform where we can plug-in anything and everything. Our QA cell has to get used to this OPEN Architecture.
- Utilisation of drones: to design a lab around it; buy a small 3 D camera and have courses on aerial survey, cloud points capture and processing to make it 3 D mock
- Utilisation of best opportunities for placement in the Dassault SI platform as there is a glut of professionals with Catia skills, Biovia, Enovia, Apriso, Exalead and Delmia. We must diversify so that we can create jobs, consulting practice and create a whole new programme. For example, Centurion University is serious on DFI and the initiatives taken by Vice President along with Dassault Systems. RobotiX – TactiX platform which can act as ground data provider for crop modelling. It can also take data from that AI/ML engine and transmit back to farmers / growers too. With the farmer model, which Dassault platform can be used to track and monitor all farmers; hand hold them with agri technology to improve economic situation. Market connect can be established as well, which would help farmers to fetch better value.
- Work out an annual action plan on developing intersection projects and synergies of engineering, agriculture and biology specially in following areas:

- i) Look at Bio Engineering applications: especially in the area of devices
- ii) Look at commercial scale hydroponics, protected agriculture and how civil students can help in that. We will use STP water for hydroponics
- iii) Sensor based precision irrigation
- iv) CS applications of big data and mobile apps to the crop health management
- v) Image processing, drones and its applications to crop and soil health management

Name:

K.V.D. Prakash

Signature of the Coordinator, IQAC

Name:

Durginika R. Kumar

Signature of the Chairperson, IQAC

_____ *** _____

Abbreviations

AAJ	-	Alumni Association of JITM
CAS	-	Career Advanced Scheme
CAT	-	Common Admission Test
CBCS	-	Choice Based Credit System
CE	-	Centre for Excellence
CGPA	-	Cumulative Grade Point Average
COP	-	Career Oriented Programme
CPE	-	College with Potential for Excellence
CUTM	-	Centurion University of Technology and Management
DPE	-	Department with Potential for Excellence
EOD	-	Examination on Demand
ERP	-	Enterprise Resource Planning
GATE	-	Graduate Aptitude Test
ICT	-	Information and Communication Technology
JITM	-	Jagannath Institute of Technology and Management
NET	-	National Eligibility Test
PEI	-	Physical Education Institution
SAP	-	Special Assistance Programme
SF	-	Self Financing
SLET	-	State Level Eligibility Test
TEI	-	Teacher Education Institution
UGC	-	University Grants Commission
UPE	-	University with Potential Excellence
UPSC	-	Union Public Service Commission

Academic Calendar for the Academic Year 2018-19

Semester	Internal Examination			End Semester Examination
	1	2	3	
Odd (1 st July – 31 st December 2018)				
7 th Semesters: 19 th June 2018	26 th July to 28 th July 2018	23 rd August to 25 th August 2018	Last date of Instruction: 1 st September 2018	External Practical Exam: 3 rd September to 5 th September 2018
3 rd & 5 th Semesters: 19 th June 2018	6 th August to 10 th August 2018	3 rd to 7 th September 2018	Last date of Instruction: 12 th October 2018	External Practical Examination: 29 th October to 9 th November 2018
1 st Semester: 27 th August 2018	20 th September to 22 nd September 2018	25 th October to 27 th October 2018	Last date of Instruction: 9 th November 2018	External Practical Examination: 15 th November to 17 th November 2018
Even (1 st January – 30 th June 2019)				
8 th Semesters: 20 th September 2018	25 th October to 27 th October 2018	22 nd November to 24 th November 2018	Last date of Instruction: 7 th December 2018	External Practical Exam: 10 th December to 15 th December 2018 Internship: 2 nd January to 31 st March 2019 Assessment: 3 rd April to 7 th April 2019
2 nd , 4 th & 6 th Semesters: 3 rd December 2018	22 nd Jan to 26 th January 2019	19 th to 23 rd February 2019	Last date of Instruction: 16 th March 2019	External Practical Examination: 25 th March to 6 th April 2019

Sample Feedback Analysis



Student Feedback Report

CENTURION UNIVERSITY OF TECHNOLOGY AND MANAGEMENT, PARALAKHEMUNDI

Emp Name	Binod Padhy	Emp Code	EMPPKD0034
Class	B.Tech ME 2nd Sem (Sec-A)	Subject	ELECTRONICS & ITS APPLICATIONS

Sr.No.	Questions	5	4	3	2	1	Avg.
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Emp Name	Raghuveer Dantakruti	Emp Code	EMPPKD0046
Class	B.Tech ME 6th Sem (Sec-A)	Subject	SUBSYSTEMS OF AUTOMOBILE (DEAE0401)

Sr.No.	Questions	5	4	3	2	1	Avg.
1	Teacher covers the syllabus completely in time.	1	4	1	2	0	3.5
2	Teacher offers assistance and counselling as and when needed by you.	2	3	0	3	0	3.5
3	Aims and Objectives made clear.	2	3	0	3	0	3.5
4	Subject matter organized in a logical sequence.	0	4	1	3	0	3.13
5	Teacher comes to the class on time.	1	4	1	2	0	3.5
6	Teacher comes well prepared to the class.	2	2	3	0	1	3.5
7	Teaching is well planned	2	2	2	2	0	3.5
8	Did you feel encouraged to ask questions ?	2	3	0	2	1	3.38
9	Did you feel motivated to raise doubts / queries ?	0	3	2	3	0	3
10	Does the teacher answer the questions raised by your expectation ?	3	3	0	1	1	3.75
11	Teacher encourages, compliments and praises originality and creativity displayed	1	4	1	1	1	3.38
12	Teacher is courteous and impartial in dealing ?	1	3	1	3	0	3.25
13	Notes and dictation are clear and effective.	1	5	0	2	0	3.63
14	Teacher provides examples of the concept / principle.	2	3	0	2	1	3.38
15	Teacher writes / draws legibly.	0	5	2	1	0	3.5
							3.43

Legend
M L
20/3/19

CENTURION UNIVERSITY OF TECHNOLOGY AND MANAGEMENT, PARALAKHEMUNDI

Emp Name	Binod Padhy	Emp Code	EMPPKD0034
Class	B.Tech ME 2nd Sem (Sec-A)	Subject	ELECTRONICS & ITS APPLICATIONS

Sr.No.	Questions	5	4	3	2	1	Avg.
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Emp Name	Sudhanshu Sahu	Emp Code	EMPPKD0056
Class	B.Tech ME 4th Sem (Sec-A)	Subject	INTERNAL COMBUSTION ENGINES

Sr.No.	Questions	5	4	3	2	1	Avg.
1	Teacher covers the syllabus completely in time.	7	5	1	1	1	4.07
2	Teacher offers assistance and counselling as and when needed by you.	7	7	0	0	1	4.27
3	Aims and Objectives made clear.	9	4	1	0	1	4.33
4	Subject matter organized in a logical sequence.	10	4	0	0	1	4.47
5	Teacher comes to the class on time.	9	4	0	0	2	4.2
6	Teacher comes well prepared to the class.	8	6	0	1	0	4.4
7	Teaching is well planned	9	4	1	0	1	4.33
8	Did you feel encouraged to ask questions ?	9	4	0	1	1	4.27
9	Did you feel motivated to raise doubts / queries ?	8	5	1	0	1	4.27
10	Does the teacher answer the questions raised by your expectation ?	8	5	1	0	1	4.27
11	Teacher encourages, compliments and praises originality and creativity displayed	8	4	1	1	1	4.13
12	Teacher is courteous and impartial in dealing ?	7	5	1	1	1	4.07
13	Notes and dictation are clear and effective.	9	4	1	0	1	4.33
14	Teacher provides examples of the concept / principle.	8	4	1	0	2	4.07
15	Teacher writes / draws legibly.	10	4	0	0	1	4.47
							4.26

SSS
21-03-19

Alumni Feedback

An alumni meet was conducted on **20th October 2019** at Hyderabad where 68 alumni with their family members participated. The objective was to reach out to maximum number of our alumni, connect and bond with them, and to explore the process of leveraging their network for the benefit of their alma mater

MEMBERS PRESENT:

1. Dr. Anita Patra, Registrar, CUTM, Odisha
2. Dr. Sangram Keshari Swain, Dean Students' Welfare, CUTM, Bhubaneswar Campus
3. Prof. Sambeet Patro, Coordinator, Alumni Association, CUTM, Odisha
4. Mr. Shakti Khadanga, Alumni Coordinator, Hyderabad Chapter (2005-09 batch)
5. 32 Alumni of different batches and campuses along with their families

AGENDA:

- i. Welcome address by Mr. Shakti Khadanga.
- ii. Address by Dr. Sangram Keshari Swain on alumni engagement in the development of the University.
- iii. Brief note about the University by Dr. Anita Patra.
- iv. Address by Prof. Sambeet Patro on Alumni linkages and future events.
- v. Experience sharing by Alumni.
- vi. Vote of thanks by Mr. Sitiesh Mohanty, 1998-2002 Batch.

DETAILED DISCUSSION:

1. Opening the discussion, Mr. Shakti Khadanga, Alumni Coordinator, Hyderabad Chapter welcomed the members from the University and the alumni present in the meet. He made a brief introduction of the purpose of the meeting. He also briefed about Alumni Association to all the members. A summary of the discussion is presented below :

- i. Alumni association of JITM was registered under society act with registration number 08/08-09 dated 7th July 2008.
- ii. As JITM has been accorded the status of a University with the name Centurion University of Technology and Management another association is registered with the name Centurion University Alumni Association.
- iii. Every year the association is conducting alumni meet at different parts.
- iv. One home coming event was conducted on 26th December 2015.
- v. The association has decided to conduct alumni meet in every three months in different places.

2. Dr. Sangram Keshari Swain, Dean Students' Welfare, CUTM, Bhubaneswar Campus, briefed about the current activities of the university. He requested all the alumni to contribute on the following four points.

- i. Help in preparing the proper database of alumni.
- ii. Lead in arranging alumni meet and home coming event in regular basis.
- iii. Contribute for the academic development of the current University students.
- iv. Play a vital role in placement activities of the University and fund contribution.

3. Dr. Anita Patra, Registrar, CUTM, Odisha, briefly explained the whole gathering since the inception of JITM, then JITM getting status of the University and become CUTM, then to the present state of the University on the following points.

- i. Choice Based Credit System
- ii. Domain Based Learning
- iii. Project Based Learning Pedagogy
- iv. Hands on Learning
- v. Action Research
- vi. Startup initiatives of Centurions and its progress.
- vii. Social Entrepreneurship initiatives by the University
- viii. She suggested alumni involvement to support the new technology based domain learning by either being associated as industry partners or through workshops.

4. Prof. Sambheet Patro, Coordinator, Alumni Association, CUTM, Odisha briefed on the Alumni linkages and future events.

- i. Two home coming events are planned this year (2019). One in Paralakhemundi Campus and another in Bhubaneswar Campus.
- ii. The home coming event at Paralakhemundi is scheduled on 23 - 24 December 2019.
- iii. The home coming event at Bhubaneswar is scheduled after the Paralakhemundi event. Exact date would be decided soon.
- iv. Will be using a dedicated web based application having all alumni details and they will have the access and could share their views and updates with others.

5. Sharing Memory: There were more than 20 alumni shared their old memorable experiences during their study at JITM/CUTM. All of them assured for providing any sort of assistance for improving the University status with their contribution of own capacity. Some of the details of alumni shared their experiences are given below (not in particular order or format):

- 1) Sitesh Mohanty - 98 batch - HR, Bank of America
- 2) Bhargav - Gold medalist 98 batch - Quebanetics - AI, ML,
- 3) Shraban- 98 batch - St.MARTINS college
- 4) Anusuya Mohanty - 99 batch - Manager at IBM
- 5) Pradeep - 99 batch – Delloite

- 6) Hara Prasad Nayak- 2001, Business development, GPS devices, recruits ITI students of any trade.
- 7) Manoranjan - 2002 batch - Microsoft, Open source consultant, Azure cloud
- 8) Susanta - 2007-2009 PGDM, CSREM, HR and Mkt, placed in Drishtee, HR at Novartis at present
- 9) Deepak Kumar - 2012 pass out, ME, NDT.com consultant, worked at GTET at beginning
- 10) Rajiv Tiwari - ME, 2013 passed out working at Hilti, senior technical Engg,
- 11) Raghav - 2016 pass out, ECE, developed smart switches, converting into products, hardware support, IOT part.
- 12) Sneha- 2017 pass out, Automation in Asterisk group
- 13) Poojaa 2017 passout In start up company
- 14) Pawan ECE 2005-2009, CISCO
- 15) Padmanav Pujari, CSE, 2015, Qualcomm
- 16) Neelamadha - CSE 2015 passout, Java developer
- 17) Pratichi- 99 batch, chemical engineering
- 18) Sheela –
- 19) Pradeep – Dell
- 20) K Sujit – IoT
- 21) Shakti Khadanga - Dr. Reddy

Etc.....

6. As there were no other points left for discussion the meeting ended with vote of thanks to all the members by Mr. Sitesh Mohanty, 1998-2002 JITM CSE Batch.
7. After the meeting all the members present enjoyed sumptuous lunch at the poolside restaurant.
8. Then all the alumni enjoyed fun games, indoor games, swimming etc.
9. The eventful and memorable day came to an end with High Tea.
10. As there was no other points left for discussion the meeting ended with a vote of thanks to all the members.

Centurion University of Technology and Management
Report on Academic Audit (2018-19)

**REPORT ON ACADEMIC AUDIT
OF
PARALAKHEMUNDI CAMPUS**

Prepared by:
Dr. S K Biswal (Convener)
Dr. Manoj Rath
Er. Sub rat Pradhan
Er. Rezwan Khan
Dr. Mahendra Kumar Rath
Dr. Umakanta Nayak

Submitted to:
The Registrar



Centurion
UNIVERSITY
*Shaping Lives...
Empowering Communities...*

Centurion University of Technology and Management, Odisha
Alluri Nagar, R. Sitapur, Paralakhemundi, Gajapati, 761211
October 2018

ACKNOWLEDGEMENT

It is our pleasure to conduct and prepare the academic audit report carried out on 4th and 5th of October 2018 at Paralakhemundi campus. We are very much thankful to the Registrar, Centurion University of Technology and Management for providing us the opportunity.

We are extremely thankful to the Dean, School of Engineering Technology, Dean, School of Applied Sciences, Dean, School of Vocational Education and PGP Coordinator, School of Management for facilitating the process of academic audit in their respective schools.

We are thankful to head of departments and faculty members for sharing their valuable time in discussing with us and cooperating in verification of documents sought for in the process of academic audit.

We are thankful to the students for their active participation in answering our queries in the classrooms and laboratories.

Dr. S K Biswal (Convener)
Dr. Manoj Rath
Er. Subrat Pradhan
Er. Rezwan Khan
Dr. Mahendra Kumar Rath
Dr. Umakanta Nayak
Centurion University of Technology and Management,
Bhubaneswar Campus, Odisha

EXECUTIVE SUMMARY

Centurion University of Technology and Management assigned us to carry out the academic audit of School of Engineering and Technology, School of Applied Sciences, School of Vocational Training and School of Management of Paralakhemundi campus. The team carried out the audit on 4th and 5th October 2018 at Paralakhemundi campus. The team had through discussion with the Deans, Head of Departments and selective faculty members of different schools. Records were also verified to ascertain the effectiveness of the activities. Interactions with students were carried out to find the effectiveness of learning process.

The Key observations are

- Students were allowed to choose predefined subjects from different baskets as per their choices.
- Learning outcome is explained to the students in each subject
- Lesson plans were prepared and shared with the students. The soft copy of the same needs to be shared with the students
- Session wise progress is reviewed by the head of the departments from time to time.
- Videos and online materials are used in classroom at moderate level
- Use of machine and tools are used at moderate level.
- Assignments are provided to the students and evaluated on regular basis
- Project identification, assigned and reviewed is at moderate level.
- Exposure visit of students are planned but not carried out in many departments.
- Teaching effectiveness is good. Teaching notes may be shared with students before commencement of the topic. More problems need to be solved in classrooms of School of Applied Sciences.
- Overall attendance is above 80%.
- Learning record is maintained by students and verified by faculty members baring few subjects.
- Lab manuals are maintained.
- Experiments are carried out as per plan except 1st sem of M.Sc.
- Domain class effectiveness is at moderate level.
- Industry partner in domain subjects are yet to be identified in few domains
- Product development yet to be implemented in some projects.

- Remedial classes are arranged for slow learners but documentation needs to be carried out.
- MIS usage is satisfactory. Many of the components of MIS are yet to be configured for optimal use.
- Mentoring system in place.in all schools
- Placement and training classes are taken care of by training department
- Result analysis needs to be more systematic.
- Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.) needs to be strengthened
- E-content delivery and E-classroom use need to be strengthened.
- Consecutive library classes may be assigned for students to facilitate student movements to library during class hours.

Detail reports on academic audit School wise and Department wise

A. School of Engineering and Technology

(i) Department: Computer Science Engineering

The following observations were made during our visit:

1. Status of effectiveness of CBCS for B.Tech/ B.Sc./ Diploma students

- a. Choice of subject: Yes, students were allowed to choose the subjects as per their preferences [discussed with 7th sem]
- b. Understanding of learning outcome: Students were clearly explained by teachers.
- c. Lesson Plan shared: Shared during the first week of commencement of classes.
- d. Session wise progress review: Maintained and updated weekly by HOD
- e. Clarity on assessment methods and implementation: Clearly understood by all students and in-line with pedagogy.
- f. Session wise use of reference materials (Video/online material etc.): NPTEL, YouTube as when necessary.
- g. Hands on Practice (Use of Machine/tool): Yes
- h. Subject related project identified, assigned, reviewed, assessment: Assigned and maintained regularly
- i. Subject related assignment: Yes
- j. Exposure visit: Planned yet to be executed

2. Theory Classes

- (i) Teaching Effectiveness (Understanding of concepts): Yes
- (ii) Overall Attendance in class: 75% - 85%
- (iii) Learning Record: Maintained and verified regularly (by HOD), 7th sem students not started yet.

3. Practice/Project Classes

- (i) Verification of lab manual: OK
- (ii) Coverage of all experiments mentioned for Practice: Yes
- (iii) Verification of learning records: Yes
- (iv) Students assessment: Ok
- (v) Project/Internship as per norms: Planned but yet to be executed.
- (vi) M. Tech/ M. Phil Thesis: NIL

4. Domain Classes

- (iv) Teaching Effectiveness (course outline and coverage): Yes
- (v) Faculty Involvement: Active
- (vi) Student Involvement: Satisfactory

- (vii) Domain Partner performance: Active, industry partner classes were going on.
- (viii) Practice and Project undertaken: Yet to be decided, though some product based work already completed.
- (ix) Project outcome – product developed: Yes.
- (x) Internship arrangement: Yet to be arranged.
- (xi) Student feedback: Satisfactory.

5. Interaction with the HoD/Faculty

- (i) Assignments : Checked and reviewed from time to time
- (ii) Lesson Plan: Prepared and shared
- (iii) Evaluation Process: As per plan
- (iv) Skill Certification Courses: NPTEL and PMKVY
- (v) Placement Training/ LSD Classes: Classes are on and verified with students.
- (vi) Remedial classes: As when required, documents not yet maintained.
- (vii) Result Analysis subject wise: Maintained
- (viii) Mentoring systems: verify a few reports/ Career Plan: Checked and found to be OK, career plan submitted to placement cell.
- (ix) MIS Usage: Used, though some issues are yet to be solved.
- (x) Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.): Planned and communication has been done with 3 companies.

6. Delivery of E-Content in E-Classroom: Average

7. Interaction with corresponding Deans/PGP Coordinator : Yes

- (i) Discussion regarding the observations made by the Team on above issues.

(ii) Department: Electronics and Communication Engineering

The following observations were made during our visit:

- 1. Status of effectiveness of CBCS for B.Tech/ B.Sc./ Diploma students**
 - a. Choice of subject : Students opted courses as per their choice [discussed with 3rd and 7th sem]
 - b. Understanding of learning outcome: Students were clearly explained by teachers.
 - c. Lesson Plan shared: Shared during the first week of commencement of classes.
 - d. Session wise progress review: Maintained and updated weekly by HOD
 - e. Clarity on assessment methods and implementation: Clearly understood by all students.
 - f. Session wise use of reference materials (Video/online material etc.): NPTEL, YouTube and PPT as when necessary.
 - g. Hands on Practice (Use of Machine/tool): Yes
 - h. Subject related project identified, assigned, reviewed, assessment: Assigned and maintained
 - i. Subject related assignment: Yes
 - j. Exposure visit: Planned, yet to be executed
- 2. Theory Classes**
 - (i) Teaching Effectiveness (Understanding of concepts): Yes
 - (ii) Overall Attendance in class: 75% - 85%
 - (iii) Learning Record: Maintained and verified regularly.
- 3. Practice/Project Classes**
 - (i) Verification of lab manual: Yes
 - (ii) Coverage of all experiments mentioned for Practice: Yes
 - (iii) Verification of learning records: Maintained by students
 - (iv) Students assessment: As per plan
 - (v) Project/Internship as per norms: Planned, to be executed at Jatni campus
 - (vi) M. Tech/ M. Phil Thesis: NIL
- 4. Domain Classes**
 - (i) Teaching Effectiveness (course outline and coverage): Ok
 - (ii) Faculty Involvement: Faculty members are teaching pre-requisite subjects. Main role by faculty members at Jatni campus.
 - (iii) Student Involvement: Satisfactory
 - (iv) Domain Partner performance: To be collected from Jatni Campus.
 - (v) Practice and Project undertaken: Jatni Campus
 - (vi) Project outcome – product developed: To be collected from Jatni Campus
 - (vii) Internship arrangement: To be collected from Jatni Campus
 - (viii) Student feedback: They are eager to start the course work.
- 5. Interaction with the HoD/Faculty**
 - (i) Assignments :Checked

- (ii) Lesson Plan: Prepared
- (iii) Evaluation Process: Found to be alright
- (iv) Skill Certification Courses: NPTEL and PMKVY
- (v) Placement Training/ LSD Classes: Classes are on and verified with students.
- (vi) Remedial classes: As when required. Records to be maintained
- (vii) Result Analysis subject wise: Done and maintained in tabular form, graphical analysis to be done.
- (viii) Mentoring systems- verify a few reports/ Career Plan: Checked and found to be OK, career plan submitted to placement cell.
- (ix) MIS Usage: Used, though some issues are yet to be solved.
- (x) Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.): Industrial visit Planned, yet to be executed. One Workshop is planned, yet to be conducted.

6. Delivery of E-Content in E-Classroom : Average

7. Interaction with corresponding Deans/PGP Coordinator : Yes

- (i) Discussion regarding the observations made by the Team on above issues.

(iii) Electrical and Electronics Engineering

The following observations were made during our visit:

- 1. Status of effectiveness of CBCS for B.Tech/ B.Sc./ Diploma students**
 - a. Choice of subject : Offered to students as per their choice [discussed with 7th sem]
 - b. Understanding of learning outcome: Students were clearly explained by teachers.
 - c. Lesson Plan shared: Shared during the first week of commencement of classes.
 - d. Session wise progress review: Maintained and updated weekly by HOD
 - e. Clarity on assessment methods and implementation: Clearly understood by all students and it is in-line with pedagogy.
 - f. Session wise use of reference materials (Video/online material etc.): NPTEL, YouTube as when necessary.
 - g. Hands on Practice (Use of Machine/tool): Yes
 - h. Subject related project identified, assigned, reviewed, assessment: Assigned, maintained and monitored regularly
 - i. Subject related assignment: Yes
 - j. Exposure visit: Could not be planned due to low student strength
- 2. Theory Classes**
 - (i) Teaching Effectiveness (Understanding of concepts): Yes
 - (ii) Overall Attendance in class: 70%, 0%, 85%, 90% respectively
 - (iii) Learning Record: OK and verified
- 3. Practice/Project Classes**
 - (i) Verification of lab manual: OK
 - (ii) Coverage of all experiments mentioned for Practice: Yes
 - (iii) Verification of learning records: Ok
 - (iv) Students assessment: As per plan
 - (v) Project/Internship as per norms: Yet to be planned in collaboration with Jatni campus.
 - (vi) M. Tech/ M. Phil Thesis: NIL
- 4. Domain Classes: NA**
 - (i) Teaching Effectiveness (course outline and coverage):
 - (ii) Faculty Involvement:
 - (iii) Student Involvement:
 - (iv) Domain Partner performance:
 - (v) Practice and Project undertaken:
 - (vi) Project outcome – product developed:
 - (vii) Internship arrangement:
 - (viii) Student feedback: Computer system upgradation required

5. Interaction with the HoD/Faculty

- (i) Assignments : Time to time provided, hard copy received and checked
- (ii) Lesson Plan: Prepared and shared
- (iii) Evaluation Process: As per norms
- (iv) Skill Certification Courses: none
- (v) Placement Training/ LSD Classes: Classes are on and verified with students.
- (vi) Remedial classes: conducted as when required, documents are not maintained.
- (vii) Result Analysis subject wise: compiled, analysis to be done
- (viii) Mentoring systems-- verify a few reports/ Career Plan: Checked and found to be OK, career plan submitted to placement cell.
- (ix) MIS Usage: Used, though some registration issue are yet to be solved.
- (x) Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.): planned.
Yet to be conducted

6. Delivery of E-Content in E-Classroom : Average

7. Interaction with corresponding Deans/PGP Coordinator : Yes

- (ii) Discussion regarding the observations made by the Team on above issues.

(iv) Department of Mechanical Engineering

The following observations were made during our visit:

- 1. Status of effectiveness of CBCS for B.Tech/ B.Sc./ Diploma students**
 - a. Choice of subject : Students opted courses as per their choice
 - b. Understanding of learning outcome: Discussed with the students in the first class as well as commencement of each chapter.
 - c. Lesson Plan shared: Yes shared (soft copy)
 - d. Session wise progress review: Progressed as per plan
 - e. Clarity on assessment methods and implementation Shared with the students and implemented.
 - f. Session wise use of reference materials (Video/online material etc.) PPTs and videos are used for lectures and study materials are being given in soft copy.
 - g. Hands on Practice (Use of Machine/tool) Final year students from specific domain are quite confident in using machine, machine tools, hand tools, and electrical equipment.
 - h. Subject related project identified, assigned, reviewed, assessment: Final year students have been assigned domain based projects followed by internship. They will finish the domain based project in December before going for internship. Some of the 2nd and 3rd year students are involved in GTM projects and automobile projects where as 1st year students are assigned to do the lab related micro projects
 - i. Subject related assignment: All assignment are updated and signed by the respective faculties
 - j. Exposure visit: Not done
- 2. Theory Classes**
 - (i) Teaching Effectiveness (Understanding of concepts): Good
 - (ii) Overall Attendance in class: Approximately 95%
 - (iii) Learning Record: Well Maintained
- 3. Practice/Project Classes**
 - (i) Verification of lab manual: All lab manuals are prepared and followed properly
 - (ii) Coverage of all experiments mentioned for Practice: Done.
 - (iii) Verification of learning records: All action learning records are updated
 - (iv) Students assessment: Assessment are done in the labs in regular basis at the end of each lab
 - (v) Project/Internship as per norms: Projects are due for completion in December 2018.
 - (vi) M Tech /MPhil Thesis: Continued

4. Domain Classes

- (i) Teaching Effectiveness (course outline and coverage): Good but machine availability is a problem in case of production tech. domain
- (ii) Faculty Involvement: Good
- (iii) Student Involvement: Good
- (iv) Domain Partner performance: Good
- (v) Practice and Project undertaken: Welding of stainless steel, Non-traditional machining and 3D Printing, Automotive interior and exterior design
- (vi) Project outcome – Product developed: Stainless steel gate manufactured, gyroplane chassis
- (vii) Internship arrangement: Not yet finalized
- (viii) Student feedback: Very good in automotive and CNC

5. Interaction with the HoD/Faculty

- (i) Assignments: Regularly done
- (ii) Lesson Plan: Done as per the standard
- (iii) Evaluation Process: Done as per the standard in action learning record
- (iv) Skill Certification Courses: Done
- (v) Placement Training/ LSD Classes: Are going on
- (vi) Remedial classes: Done before every EOD
- (vii) Result Analysis subject wise: Done
- (viii) Mentoring systems-- verify a few reports/ Career Plan: Mentoring reports are maintained properly
- (ix) MIS Usage: Up to date
- (x) Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.): Done

6. Delivery of E-Content in E-Classroom

Class Room delivery of e-content is done

7. Interaction with corresponding Deans/PGP Coordinator

- (iii) Discussion regarding the observations made by the Team on above issues:

(v) Department: Civil Engineering

The following observations were made during our visit:

- 1. Status of effectiveness of CBCS for B.Tech/ B.Sc./ Diploma students**
 - a. Choice of subject: Taken by students by their own
 - b. Understanding of learning outcome: Done by students
 - c. Lesson Plan shared: Yes, lesson plans are shared to students by individual faculty members.
 - d. Session wise progress review: done in HoD meeting
 - e. Clarity on assessment methods and implementation: Yes
 - f. Session wise use of reference materials (Video/online material etc.): Used by some faculty members. Need to be improved.
 - g. Hands on Practice (Use of Machine/tool): Moderate level
 - h. Subject related project identified, assigned, reviewed, assessment: Done at Department level
 - i. Subject related assignment: Yes
 - j. Exposure visit: Not yet done
- 2. Theory Classes**
 - (i) Teaching Effectiveness (Understanding of concepts): Good
 - (ii) Overall Attendance in class: 80%
 - (iii) Learning Record: Maintained (Theory class records need to be improved)
- 3. Practice/Project Classes**
 - (i) Verification of lab manual Maintained
 - (ii) Coverage of all experiments mentioned for Practice: Yes
 - (iii) Verification of learning records: Yes
 - (iv) Students assessment: Done
 - (v) Project/Internship as per norms: Yes
 - (vi) M. Tech/ M. Phil Thesis: No
- 4. Domain Classes**
 - (i) Teaching Effectiveness (course outline and coverage): Medium
 - (ii) Faculty Involvement: Fully involved
 - (iii) Student Involvement: Fully involved
 - (iv) Domain Partner performance: No domain partner
 - (v) Practice and Project undertaken: At industry level
 - (vi) Project outcome – product developed: Not yet
 - (vii) Internship arrangement: Arranged .
 - (viii) Student feedback: Good
- 5. Interaction with the HoD/Faculty**
 - (i) Assignments: Given at student level, copies are evaluated and returned to students
 - (ii) Lesson Plan: Prepared and shared

- (iii) Evaluation Process: Carried out as per norms
- (iv) Skill Certification Courses: No
- (v) Placement Training/ LSD Classes: Done by Training Dept.
- (vi) Remedial classes: Not organized
- (vii) Result Analysis subject wise: Yes done at Department level
- (viii) Mentoring systems-- verify a few reports/ Career Plan: Yes, student wise maintained
- (ix) MIS Usage: Yes
- (x) Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.): Yes

6. Delivery of E-Content in E-Classroom: No

7. Interaction with corresponding Deans/PGP Coordinator

- (iv) Discussion regarding the observations made by the Team on above issues. Yes

B. School of Applied Sciences

The following observations were made during our visit:

1. Status of effectiveness of CBCS for B.Tech/ B.Sc./ Diploma students

- a. Choice of subject: Allowed with limited options
- b. Understanding of learning outcome: Yes
- c. Lesson Plan shared: Yes. Soft copy needs to be circulated
- d. Session wise progress review: Progress is as per plan and reviewed by Dean
- e. Clarity on assessment methods and implementation: Yes
- f. Session wise use of reference materials (Video/online material etc.): Reference material is given. Video and online material needs to be used
- g. Hands on Practice (Use of Machine/tool): Used to a limited extent
- h. Subject related project identified assigned, reviewed, assessment: Projects identified and assigned in few papers.
- i. Subject related assignment: All faculty members are providing assignments in their individual subjects.
- j. Exposure visit: Needs to be carried out

2. Theory Classes

- (i) Teaching Effectiveness (Understanding of concepts): Average (Taken feedback from students, faculty members need to come prepared, more problem solving to be done in class room)
- (ii) Overall Attendance in class: 90%
- (iii) Learning Record: Maintained

3. Practice/Project Classes

- (i) Verification of lab/ internship manual: Prepared and implemented. 1st sem., M.Sc. (Physics) lab sessions are yet to be started.
- (ii) Coverage of all experiments mentioned for Practice: As per plan continuing
- (iii) Verification of learning records: Verified
- (iv) Students assessment: Carried out by faculty members regularly
- (v) Project/Internship as per norms: Needs to be planned
- (vi) M. Tech/ M. Phil Thesis:

4. Domain Classes NA

- (i) Teaching Effectiveness (course outline and coverage):
- (ii) Faculty Involvement:
- (iii) Student Involvement
- (iv) Domain Partner performance
- (v) Practice and Project undertaken
- (vi) Project outcome – product developed
- (vii) Internship arrangement
- (viii) Student feedback

5. Interaction with the HoD/Faculty

- (i) Assignments: Assignments are provided in all subjects and evaluated by faculty members
- (ii) Lesson Plan: Prepared and shared with students. Soft copy of the same need to be given to students
- (iii) Evaluation Process: Followed as per plan
- (iv) Skill Certification Courses:
- (v) Placement Training/ LSD Classes: Continuing
- (vi) Remedial classes: Conducted but records need to be maintained
- (vii) Result Analysis subject wise: Maintained
- (viii) Mentoring systems-- verify a few reports/ Career Plan: In place.
- (ix) MIS Usage: Used
- (x) Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.): Student seminars are conducted every Saturday. Workshops and industry visit needs to be planned

6. Delivery of E-Content in E-Classroom: Needs to be prepared

7. Interaction with corresponding Deans/PGP Coordinator

- (v) Discussion regarding the observations made by the Team on above issues.

C. School of Vocational Education and Training (All Departments)

The following observations were made during our visit:

1. Status of effectiveness of CBCS for B.Tech/ B.Sc./ Diploma students

- a. Choice of subject: As per the new diploma syllabus 2018 there is some scope for the students to choose subjects but in 1st year they have all compulsory subjects.
- b. Understanding of learning outcome: Discussed with the students in the first class of the session
- c. Lesson Plan shared: Yes shared
- d. Session wise progress review: Done
- e. Clarity on assessment methods and implementation: Shared but more clarity and transparency in evaluation required.
- f. Session wise use of reference materials (Video/online material etc.): PPTs and videos are used in few classes but study materials are being given in soft copy
- g. Hands on Practice (Use of Machine/tool): Final year students are quite confident in using machine, machine tools, hand tools, and electrical equipment.
- h. Subject related project identified assigned, reviewed, assessment: Final year students have not been assigned a project yet. Whereas 1st year students are being told to do the lab related micro projects
- i. Subject related assignment: All assignment copies are updated and signed by the respective faculties
- j. Exposure visit: Only Final year students have gone for the industrial visit

2. Theory Classes

- (i) Teaching Effectiveness (Understanding of concepts): good
- (ii) Overall Attendance in class: Approximately 80%
- (iii) Learning Record: Maintained but some improvement is required. A senior member needs to spend some time with the students as well as faculties for the improvement.

3. Practice/Project Classes

- (i) Verification of lab manual: All lab manuals that are used for B. Tech. courses are used in diploma which needs some rectification according to diploma standard and skill desired.
- (ii) Coverage of all experiments mentioned for Practice: Done
- (iii) Verification of learning records: All action learning records are updated
- (iv) Students assessment: Weekly assessment is being done in the labs
- (v) Project/Internship as per norms: Projects are not yet started but final year students have gone for internship
- (vi) M. Tech/ M. Phil Thesis: NA

4. Domain Classes: (Not Applicable for Diploma students)

- (i) Teaching Effectiveness (course outline and coverage)
- (ii) Faculty Involvement
- (iii) Student Involvement
- (iv) Domain Partner performance
- (v) Practice and Project undertaken
- (vi) Project outcome – product developed
- (vii) Internship arrangement
- (viii) Student feedback

5. Interaction with the HoD/Faculty

- (i) Assignments: Regularly done
- (ii) Lesson Plan: Done as per the standard and shared with students
- (iii) Evaluation Process: Done as per the standard in action learning record
- (iv) Skill Certification Courses: Pmkvy-asst eleri, fitter mechanical assembly, welding, gst
- (v) Placement Training/ LSD Classes: Are going on
- (vi) Remedial classes: Done before every EOD but yet it is to be documented
- (vii) Result Analysis subjectwise: Done for few number of students as result is withheld for many students.
- (viii) Mentoring systems-- Verify a few reports/ Career Plan Mentoring: Reports are maintained properly
- (ix) MIS Usage: Up to date
- (x) Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.)
- (xi) Not done

6. Delivery of E-Content in E-Classroom

Classes are taken in e-class rooms.

7. Interaction with corresponding Deans/PGP Coordinator

Discussion regarding the observations made by the Team on above issues.

D. School of Management

The following observations were made during our visit:

1. Status of effectiveness of CBCS for B.Tech/ B.Sc./ Diploma students

- a. Choice of subject:
- b. Understanding of learning outcome: Yes
- c. Lesson Plan shared: Yes
- d. Session wise progress review: Progress is as per plan and reviewed by PGP Coordinator
- e. Clarity on assessment methods and implementation: Yes
- f. Session wise use of reference materials (Video/online material etc.): Yes
- g. Hands on Practice (Use of Machine/tool): Field projects are carried out
- h. Subject related project identified assigned, reviewed, assessment: Yes, Faculty members are assigning projects and reviewing the progress with assessment.
- i. Subject related assignment: All faculty members are providing assignments in their individual subjects.
- j. Exposure visit: Organized for MBA students. Planned for BBA students

2. Theory Classes

- (i) Teaching Effectiveness (Understanding of concepts): Good
- (ii) Overall Attendance in class: 80%
- (iii) Learning Record: Maintained

3. Practice/Project Classes

- (i) Verification of lab/ internship manual: Prepared and implemented
- (ii) Coverage of all experiments mentioned for Practice
- (iii) Verification of learning records: Verified
- (iv) Students assessment: Carried out by faculty members regularly
- (v) Project/Internship as per norms: Yes
- (vi) M. Tech/ M. Phil Thesis: NA

4. Domain Classes

- (i) Teaching Effectiveness (course outline and coverage): Satisfactory
- (ii) Faculty Involvement: Highly involved
- (iii) Student Involvement: Good
- (iv) Domain Partner performance: Good
- (v) Practice and Project undertaken: Yes
- (vi) Project outcome – product developed: Reports were generated
- (vii) Internship arrangement: Carried out regularly

(viii) Student feedback: Could not be gathered

5. Interaction with the HoD/Faculty

- (i) Assignments: Assignments are provided in all subjects and evaluated by faculty members
- (ii) Lesson Plan: Prepared and shared with students. Soft copy of the same need to be given to students
- (iii) Evaluation Process: Followed as per plan
- (iv) Skill Certification Courses:
- (v) Placement Training/ LSD Classes: Continuing
- (vi) Remedial classes: Conducted but records need to be maintained
- (vii) Result Analysis subjectwise: Maintained. Needs to be prepared graphically
- (viii) Mentoring systems-- verify a few reports/ Career Plan: In place.
- (ix) MIS Usage: Used
- (x) Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.): Conducted from time to time and file is maintained

6. Delivery of E-Content in E-Classroom: Delivered in classrooms

7. Interaction with corresponding Deans/PGP Coordinator: Yes

Discussion regarding the observations made by the Team on above issues.



Dr. Susanta Kumar Biswal
Convener
Academic Audit Team

REPORT ON ACADEMIC AUDIT OF BHUBANESWAR CAMPUS

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Submitted to:
The Registrar



**Centurion University of Technology and Management, Odisha
Alluri Nagar, R. Sitapur, Paralakhemundi, Gajapati, 761211
October 2018**

ACKNOWLEDGEMENT

It is our pleasure to conduct and prepare the academic audit report carried out on 4th and 5th of October 2018 at Bhubaneswar campus. We are very much thankful to the Registrar, Centurion University of Technology and Management for providing us the opportunity.

We are extremely thankful to the Dean, School of Engineering Technology, Dean, School of Applied Sciences, Dean, School of Vocational Education, Dean, School of Management and Principal, School of Pharmacy and Life Sciences/School of Forensic Sciences for facilitating the process of academic audit in their respective schools.

We are thankful to head of departments and faculty members for sharing their valuable time in discussing with us and cooperating in verification of documents sought for in the process of academic audit.

We are thankful to the students for their active participation in answering our queries in the classrooms and laboratories.

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EXECUTIVE SUMMARY

Centurion University of Technology and Management assigned us to carry out the academic audit of School of Engineering and Technology, School of Applied Sciences, School of Vocational Training, School of Management and School of Pharmacy and Life Sciences of Bhubaneswar campus. The team carried out the audit on 4th and 5th October 2018 at Bhubaneswar campus. The team had through discussion with the Deans, Principal, Head of Departments and selective faculty members of different schools. Records were also verified to ascertain the effectiveness of the activities.

Interactions with students were carried out to find the effectiveness of learning process.

The Key observations are

- Students were allowed to choose predefined subjects from different baskets as per their choices for courses with CBCS.
- Learning outcome is explained to the students in each subject
- Soft copy of Lesson plans were prepared and shared with the students. The hard copy of the same needs to be documented.
- Session wise progress is reviewed by the head of the departments from time to time.
- Videos and online materials are used in classroom at moderate level.
- Use of machine and tools are used at moderate level.
- Assignments are provided to the students and evaluated on regular basis.
- Project identification, assigned and reviewed is at moderate level.
- Exposure visit of students are planned but not carried out in many departments.
- Teaching effectiveness is good.
- Overall attendance is above 75%.
- Learning record is maintained by students and verified by faculty members baring few subjects.
- Lab manuals are maintained except few labs.
- Experiments are carried out as per plan.
- Domain class effectiveness is at moderate level.

- Industry partner in domain subjects are yet to be identified in few domains.
- Product development yet to be implemented in some projects.
- Remedial classes are arranged for slow learners but documentation needs to be carried out.
- MIS usage is satisfactory. But use of Mobile App is very less.
- Mentoring system in place.in all schools. Career Plan to be started.
- Placement and training classes are taken care of by training department.
- Result analysis is systematic.
- Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.) needs to be strengthened
- E-content delivery and E-classroom use need to be strengthened.

Detail reports on academic audit School wise and Department wise

A. School of Engineering and Technology

(i) Department: Computer Science Engineering

The following observations were made during our visit:

1. Status of effectiveness of CBCS for B.Tech/ B.Sc./ Diploma students

- a. Choice of subject: The choice is offered to students.
- b. Understanding of learning outcome: Learning outcome is realized effectively.
- c. Lesson Plan shared: These have been shared by faculty.
- d. Session wise progress review: Yes, it's there.
- e. Clarity on assessment methods and implementation: Yes.
- f. Session wise use of reference materials (Video/online material etc.): These have been used.
- g. Hands on Practice (Use of Machine/tool): Some systems are having issues with hardware.
- h. Subject related project identified, assigned, reviewed, assessment: Yes, these are in practice.
- i. Subject related assignment: Faculty have prepared and shared.
- j. Exposure visit: No

2. Theory Classes

- (i) Teaching Effectiveness (Understanding of concepts): Students are learning and practising well. However, they need more practice.
- (ii) Overall Attendance in class: 75%. Not using attendance register
- (iii) Learning Record: Maintained

3. Practice/Project Classes

- (i) Verification of lab manual: Previous manuals are available.
- (ii) Coverage of all experiments mentioned for Practice: It is there.
- (iii) Verification of learning records: Faculty is doing it.
- (iv) Students assessment: First two written mode and last one mostly presentation
- (v) Project/Internship as per norms: No students have taken minor projects till 5th semester
- (vi) M. Tech/ M. Phil Thesis: They have.

4. Domain Classes

- (i) Teaching Effectiveness (course outline and coverage): Needs more practice and more guidance
- (ii) Faculty Involvement: Faculty dedication is observed.
- (iii) Student Involvement: The excitement to learn and do things is visible in few students

- (iv) Domain Partner performance:
- (v) Practice and Project undertaken:
- (vi) Project outcome – product developed
- (vii) Internship arrangement
- (viii) Student feedback:
 - They find faculty members friendly and reachable
 - Meeting mentors regularly
 - Few subjects like “BMC” (by Civil dept) was dropped due to faculty unavailability (Cause is found different when interacted with faculty)
 - Need exposure visit to industry, even though locally in BBS
 - Lab facility needs to be improved (Keyboards are hard to use, legacy software not supported on high OS versions)
 - Unhappy with compulsion to use own laptops
 - Writing learning records without interest and merely for marks (Have not realised well the importance of maintaining learning records)
 - Domain subjects should be showcased well for better awareness

5. Interaction with the HoD/Faculty

- (i) Assignments: Chapter wise assignments are given to the students
- (ii) Lesson Plan: Available on MIS and shared with students
- (iii) Evaluation Process: Following the University regulations for Theory/ Practice/ Project
- (iv) Skill Certification Courses: No
- (v) Placement Training/ LSD Classes: In place
- (vi) Remedial classes: yes
- (vii) Result Analysis subject wise: satisfactory
- (viii) Mentoring systems-- verify a few reports/ Career Plan: Data is maintained at mentor; however the format is different to Paralakhemundi campus
- (ix) MIS Usage: MIS is used by faculty for required purposes
- (x) Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.): Not yet organised.

6. Delivery of E-Content in E-Classroom

E-contents are delivered by faculty in classroom, and have been shared manually with student. MIS or University LMS is not used.

7. Interaction with corresponding Deans/PGP Coordinator

- (i) Discussion regarding the observations made by the Team on above issues: yes

(ii) Department: Civil Engineering

The following observations were made during our visit:

1. Status of effectiveness of CBCS for B.Tech/ B.Sc./ Diploma students

- a. Choice of subject: The choice is offered to students.
- b. Understanding of learning outcome: Learning outcome is realized effectively.
- c. Lesson Plan shared: These have been shared by faculty.
- d. Session wise progress review: Yes, it's there.
- e. Clarity on assessment methods and implementation: Yes.
- f. Session wise use of reference materials (Video/online material etc.): These have been used.
- g. Hands on Practice (Use of Machine/tool): No issues with labs and practices.
- h. Subject related project identified, assigned, reviewed, assessment: Yes, these are in practice.
- i. Subject related assignment: Faculty have prepared and shared.
- j. Exposure visit: 4th year students visited fly-ash brick industry
Has planned visit to "Mundali" with 2nd and 3rd year students.

2. Theory Classes

- (i) Teaching Effectiveness (Understanding of concepts): Students are learning and practising well.
- (ii) Overall Attendance in class: 80%. No attendance register. This is on MIS.
- (iii) Learning Record: Maintained

3. Practice/Project Classes

- (i) Verification of lab manual: Previous manuals are available.
- (ii) Coverage of all experiments mentioned for Practice: It is there.
- (iii) Verification of learning records: Faculty is doing it.
- (iv) Students' assessment: This time 2nd and 3rd internals are by University, permitted by Dean.
- (v) Project/Internship as per norms: Last time 6th semester students took minor project. This time 1st semester students have taken minor project without any credit.
- (vi) M. Tech/ M. Phil Thesis: Available for "Structural "(since 2014), Transportation (started this time)

4. Domain Classes

- (i) Teaching Effectiveness (course outline and coverage):
Domains offered: Construction Planning Management, Planning Design and Drawing, Surveying.
Domain feedback are periodically taken and are available with Dean.
- (ii) Faculty Involvement: Faculty dedication is observed.
- (iii) Student Involvement: They are involved with depth in all relevant activities
- (iv) Domain Partner performance: Practice and Project undertaken

- 3 projects under domain are in pipeline towards GST proposal
- (v) Project outcome – product developed: Judicial Complex first floor design
Odisha Tribal boundary design, Vizag campus plan, Campus design at Gopalpur,
Balasore and Campus GIS
 - (vi) Internship arrangement: Dept. has not faced any issue till date for internship
arrangements, and the same is assured this time too.
 - (vii) Student feedback
 - Final year student are willing for customized training by industry personnel and
some assured career option. They and their parents are lacking trust in regard to
placements following to customized training (Rs.12000). They are wishing to avail
training as that place where there is possibility of placement.
 - Uncertain about placements looking at historical placement records.

5. Interaction with the HoD/Faculty

- (i) Assignments: Chapter wise assignments are given to the students
- (ii) Lesson Plan: Available on MIS and shared with students
- (iii) Evaluation Process: Following the University regulations for Theory/ Practice/
Project
- (iv) Skill Certification Courses: No
- (v) Placement Training/ LSD Classes: The registrations to customized training are
poor: 2nd year: 2, 3rd year: Nil, 4th year: 7 (after Sadbhav recruitment drive)
However, mentor are continually motivating student.
- (vi) Remedial classes: Tracking at beginning the subjects where students fail most,
and looking after them who are scoring less in internal test and guiding them.
- (vii) Result Analysis subject wise: Satisfactory
- (viii) Mentoring systems-- verify a few reports/ Career Plan: Data is maintained at
mentor; however the format is different to Paralakhemundi campus. Mentors
are working very effectively after the size of number of mentees has been
reduced to 8. They are continually tracking every aspect and staying in touch
with parents.
- (ix) MIS Usage: MIS is used by faculty for required purposes
- (x) Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.): Expert talks by:
Talk on Bondable Concrete by Prof. Dhanandakanta Mishra (Hongkong
University), EPS Building by Prof. SS Ali (Sr. Executive, Odisha Police Housing)
Seminar on Delmia in July
Emeritus Professors: Prof. Kamal Barik, RC Padhi (Former Head, Survey of India)

6. Delivery of E-Content in E-Classroom

E-contents are delivered by faculty in classroom, and have been shared manually with
student. MIS or University LMS is not used.

7. Interaction with corresponding Deans/PGP Coordinator

- (i) Discussion regarding the observations made by the Team on above issues:
Yes

(iii) Department: ECE

The following observations were made during our visit:

1. Status of effectiveness of CBCS for B.Tech/ B.Sc./ Diploma students

- a. Choice of subject: - Choice is inside the department.
- b. Understanding of learning outcome: - In some subjects.
- c. Lesson Plan shared:- Through mail, not discussed
- d. Session wise progress review: - In some subjects, faculty members has dropped some portion. Overall ok.
- e. Clarity on assessment methods and implementation: - It's good.
- f. Session wise use of reference materials (Video/online material etc.): - In few subjects it is provided.
- g. Hands on Practice (Use of Machine/tool):- Used available tools.
- h. Subject related project identified, assigned, reviewed, assessment:- Few cases
- i. Subject related assignment:- Given
- j. Exposure visit:- Not done

2. Theory Classes

- (i) Teaching Effectiveness (Understanding of concepts):- Overall ok.
- (ii) Overall Attendance in class:- 70%
- (iii) Learning Record:- Maintained

3. Practice/Project Classes

- (i) Verification of lab manual: - Not regular.
- (ii) Coverage of all experiments mentioned for Practice: - Overall ok.
- (iii) Verification of learning records:- Done
- (iv) Students assessment:- Done
- (v) Project/Internship as per norms
- (vi) M. Tech/ M. Phil Thesis

4. Domain Classes

- (i) Teaching Effectiveness (course outline and coverage):- Ok
- (ii) Faculty Involvement:- Faculty member were present
- (iii) Student Involvement: - Students have no complain in teaching.
- (iv) Domain Partner performance:- Satisfactory
- (v) Practice and Project undertaken:-Not started
- (vi) Project outcome – product developed
- (vii) Internship arrangement:- Not Started
- (viii) Student feedback:- Good

5. Interaction with the HoD/Faculty

- (i) Assignments: - In EEE all subject assignments were not there.

- (ii) Lesson Plan:- Available
- (iii) Evaluation Process: - Mentioned in lesson plan.
- (iv) Skill Certification Courses:-
- (v) Placement Training/ LSD Classes: - Very poor feedback.
- (vi) Remedial classes: - Not started.
- (vii) Result Analysis subject wise:- Available
- (viii) Mentoring systems-- verify a few reports/ Career Plan: - Career plan not started.
- (ix) MIS Usage: - For attendance update.
- (x) Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.)

6. Delivery of E-Content in E-Classroom: - Minimum.

7. Interaction with corresponding Deans/PGP Coordinator

Discussion regarding the observations made by the Team on above issues: Yes

(iv) Department: EEE

The following observations were made during our visit:

1. Status of effectiveness of CBCS for B.Tech/ B.Sc./ Diploma students

- a. Choice of subject: - Choice is inside the department.
- b. Understanding of learning outcome: - In some subjects.
- c. Lesson Plan shared:- Through mail, not discussed
- d. Session wise progress review: - In some subjects, faculty members has dropped some portion. Overall ok.
- e. Clarity on assessment methods and implementation: - It's good.
- f. Session wise use of reference materials (Video/online material etc.): - In few subjects it is provided.
- g. Hands on Practice (Use of Machine/tool):- Used available tools.
- h. Subject related project identified, assigned, reviewed, assessment:- Few cases
- i. Subject related assignment:- Given
- j. Exposure visit:- Not done

2. Theory Classes

- (i) Teaching Effectiveness (Understanding of concepts):- Overall ok.
- (ii) Overall Attendance in class:- 70%
- (iii) Learning Record:- Maintained

3. Practice/Project Classes

- (i) Verification of lab manual: - Not regular.
- (ii) Coverage of all experiments mentioned for Practice: - Overall ok.
- (iii) Verification of learning records:- Done
- (iv) Students assessment:- Done
- (v) Project/Internship as per norms
- (vi) M. Tech/ M. Phil Thesis

4. Domain Classes

- (i) Teaching Effectiveness (course outline and coverage):- Ok
- (ii) Faculty Involvement:- Faculty member were present
- (iii) Student Involvement: - Students have no complain in teaching.
- (iv) Domain Partner performance:- Satisfactory
- (v) Practice and Project undertaken:-Not started
- (vi) Project outcome – product developed
- (vii) Internship arrangement:- Not Started
- (viii) Student feedback:- Good

5. Interaction with the HoD/Faculty

- (i) Assignments: - In EEE all subject assignments were not there.
- (ii) Lesson Plan:- Available
- (iii) Evaluation Process: - Mentioned in lesson plan.
- (iv) Skill Certification Courses:-
- (v) Placement Training/ LSD Classes: - Very poor feedback.
- (vi) Remedial classes: - Not started.
- (vii) Result Analysis subject wise:- Available
- (viii) Mentoring systems-- verify a few reports/ Career Plan: - Career plan not started.
- (ix) MIS Usage: - For attendance update.
- (x) Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.)

6. Delivery of E-Content in E-Classroom: - Minimum.

7. Interaction with corresponding Deans/PGP Coordinator

Discussion regarding the observations made by the Team on above issues: Yes

(v) **Department: Mech. Engineering**

The following observations were made during our visit:

1. Status of effectiveness of CBCS for B.Tech/ B.Sc./ Diploma students

- a. Choice of subject: - Choice is inside the department.
- b. Understanding of learning outcome: - In some subjects.
- c. Lesson Plan shared:- Through mail, not discussed
- d. Session wise progress review: - In some subjects, faculty members has dropped some portion. Overall ok.
- e. Clarity on assessment methods and implementation: - It's good.
- f. Session wise use of reference materials (Video/online material etc.): - In few subjects it is provided.
- g. Hands on Practice (Use of Machine/tool):- Used available tools.
- h. Subject related project identified, assigned, reviewed, assessment:- Few cases
- i. Subject related assignment:- Given
- j. Exposure visit:- Not done

2. Theory Classes

- (i) Teaching Effectiveness (Understanding of concepts):- Overall ok.
- (ii) Overall Attendance in class:- 70%
- (iii) Learning Record:- Maintained

3. Practice/Project Classes

- (i) Verification of lab manual: - Not regular.
- (ii) Coverage of all experiments mentioned for Practice: - Overall ok.
- (iii) Verification of learning records:- Done
- (iv) Students assessment:- Done
- (v) Project/Internship as per norms
- (vi) M. Tech/ M. Phil Thesis

4. Domain Classes

- (i) Teaching Effectiveness (course outline and coverage):- Ok
- (ii) Faculty Involvement:- Faculty member were present
- (iii) Student Involvement: - Students have no complain in teaching.
- (iv) Domain Partner performance:- Satisfactory
- (v) Practice and Project undertaken:-Not started
- (vi) Project outcome – product developed
- (vii) Internship arrangement:- Not Started
- (viii) Student feedback:- Good

5. Interaction with the HoD/Faculty

- (i) Assignments: - In EEE all subject assignments were not there.
- (ii) Lesson Plan:- Available
- (iii) Evaluation Process: - Mentioned in lesson plan.
- (iv) Skill Certification Courses:-
- (v) Placement Training/ LSD Classes: - Very poor feedback.
- (vi) Remedial classes: - Not started.
- (vii) Result Analysis subject wise:- Available
- (viii) Mentoring systems-- verify a few reports/ Career Plan: - Career plan not started.
- (ix) MIS Usage: - For attendance update.
- (x) Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.)

6. Delivery of E-Content in E-Classroom: - Minimum.

7. Interaction with corresponding Deans/PGP Coordinator

Discussion regarding the observations made by the Team on above issues: Yes

(vi) Department: Biotechnology

The following observations were made during our visit:

1. Status of effectiveness of CBCS for B.Tech/ B.Sc./ Diploma students

- a. Choice of subject: The choice is limited due to limited number (resource and students).
- b. Understanding of learning outcome: Learning outcome is delivered well.
- c. Lesson Plan shared: These have been shared by faculty.
- d. Session wise progress review: Yes, it's there.
- e. Clarity on assessment methods and implementation: Yes.
- f. Session wise use of reference materials (Video/online material etc.): These have been used.
- g. Hands on Practice (Use of Machine/tool): Dept. doesn't have own labs. They are using labs such as "Immunology and Biochemistry", "Bioinformatics" of Parametric. "Cell Biology" doesn't have a lab at present to practice, but expecting to have soon as it's in progress.
- h. Subject related project identified, assigned, reviewed, assessment: Yes, these are in practice, at present.
- i. Subject related assignment: Faculty have prepared and shared.
- j. Exposure visit: Industrial visit to Den-Zon on Fermentation Technology by both year students

2. Theory Classes

- (i) Teaching Effectiveness (Understanding of concepts): Yes, it's observed.
- (ii) Overall Attendance in class: 80%. Not using attendance register.
- (iii) Learning Record: Maintained

3. Practice/Project Classes

- (i) Verification of lab manual: No
- (ii) Coverage of all experiments mentioned for Practice: It is there.
- (iii) Verification of learning records: Faculty is doing it.
- (iv) Students assessment: Mostly presentation mode
- (v) Project/Internship as per norms: Not at present.
- (vi) M. Tech/ M. Phil Thesis: N/A

4. Domain Classes: N/A

- (i) Teaching Effectiveness (course outline and coverage)
- (ii) Faculty Involvement
- (iii) Student Involvement
- (iv) Domain Partner performance
- (v) Practice and Project undertaken
- (vi) Project outcome – product developed
- (vii) Internship arrangement
- (viii) Student feedback

- 5th semester students are happy to have classes this time. They didn't have any classes in 4th semester and in 3rd semester it was little manageable.
- Need own lab to work
- A student was appreciated with paper presentation in noted conference with guidance of present faculty members.
- Worried about being neglected (class work in coming time and placement) as there are less number of students and no student got admitted this year.

5. Interaction with the HoD/Faculty

- (i) Assignments: Assignments are given to the students
- (ii) Lesson Plan: Available on MIS and shared with students
- (iii) Evaluation Process: Only 2 faculty members and very new to system (2-3 months). They are learning.
- (iv) Skill Certification Courses: No
- (v) Placement Training/ LSD Classes: As per faculty members, LSD classes are hardly useful for Biotech students for placements. Subject knowledge will suffice.
- (vi) Remedial classes:
- (vii) Result Analysis subject wise: Satisfactory
- (viii) Mentoring systems-- verify a few reports/ Career Plan: Faculty members have not been assigned with task of mentoring officially, but they are doing it.
- (ix) MIS Usage: They are using for attendance upload.
- (x) Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.): They have planned for these.

6. Delivery of E-Content in E-Classroom

E-contents are delivered by faculty in classroom, and have been shared manually with student. MIS or University LMS is not used.

7. Interaction with corresponding Deans/PGP Coordinator

- (i) Discussion regarding the observations made by the Team on above issues: Yes

(vii) **Department: CTIS**

The following observations were made during our visit:

1. Status of effectiveness of CBCS for B.Tech/ B.Sc./ Diploma students

- a. Choice of subject: The choice is limited due to limited number (resource and students).
- b. Understanding of learning outcome: Learning outcome is delivered not much effectively, but okay.
- c. Lesson Plan shared: These have been shared by faculty.
- d. Session wise progress review: Yes, it's there.
- e. Clarity on assessment methods and implementation: Yes.
- f. Session wise use of reference materials (Video/online material etc.): These have been used.
- g. Hands on Practice (Use of Machine/tool): Most are unlicensed software, trial versioned and with some open source cracking tools.
- h. Subject related project identified, assigned, reviewed, assessment: Yes, these are in practice.
- i. Subject related assignment: Faculty have prepared and shared.
- j. Exposure visit: 2nd and 3rd year students information have been shared with the partner "iNurture" for summer internship at Bengaluru H.O.

2. Theory Classes

- (i) Teaching Effectiveness (Understanding of concepts): Students need less theory and more practice
- (ii) Overall Attendance in class: 90%. Absentees are followed up. Not using attendance register
- (iii) Learning Record: Maintained

3. Practice/Project Classes

- (i) Verification of lab manual: No printed manual available. Faculty have handwritten manuals.
- (ii) Coverage of all experiments mentioned for Practice: It is there.
- (iii) Verification of learning records: Faculty are doing it.
- (iv) Students assessment: Mostly presentation mode
- (v) Project/Internship as per norms: Project will be in final year. At present, dept. is running with 3 years students. Minor projects are undertaken by 3rd year students.
- (vi) M. Tech/ M. Phil Thesis: N/A

4. Domain Classes

- (i) Teaching Effectiveness (course outline and coverage): The class room teaching is good but needs more practice.

- (ii) Faculty Involvement: Faculty dedication is observed.
- (iii) Student Involvement: Excited about learning and gaining more
- (iv) Domain Partner performance: Ongoing series of webinars on "Virtualization" and "Win Server"
Webinar on "Python" and "Java" are in pipeline.
- (v) Practice and Project undertaken:
- (vi) Project outcome – product developed: N/A
- (vii) Internship arrangement: 2nd and 3rd year students information have been shared with the partner “iNurture” for summer internship at Bengaluru H.O.
- (viii) Student feedback
 - WiFi barrier (more bandwidth is needed)
 - All Theory courses to be converted to Practice
 - Webinars are not regular (2 months since last webinar)
 - Need access to AWS, IBM has no available usefulness
 - On-demand webinars are missing on newly migrated "Krackin" site
 - They need home lab, and will be held responsible for any damage.
 - Need experienced trainers for R n T
 - Need pre-placement training
 - Need proper guidance/ counselling on career path.

5. Interaction with the HoD/Faculty

- (i) Assignments: Chapter wise assignments are given to the students
- (ii) Lesson Plan: Available on MIS
- (iii) Evaluation Process: Following the University regulations for Theory/ Practice/ Project
- (iv) Skill Certification Courses: No
- (v) Placement Training/ LSD Classes: They call it RnT.
- (vi) Remedial classes:
- (vii) Result Analysis subject wise: Satisfactory
- (viii) Mentoring systems-- verify a few reports/ Career Plan:
- (ix) MIS Usage: Faculty members are not in payroll, so they are not in University LMS.
- (x) Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.):
Mentioned above in regard to summer internship

6. Delivery of E-Content in E-Classroom

E-contents are delivered by faculty in classroom, and have been shared manually with student. MIS or University LMS is not used.

7. Interaction with corresponding Deans/PGP Coordinator

- (i) Discussion regarding the observations made by the Team on above issues
: Yes

B. School of Vocational Training/Diploma

The following observations were made during our visit:

1. The teaching effectiveness was good at theory as well as labs.
2. The overall attendance was around 75% in classes.
3. Students of all the semester have maintain the learning records day wise.
4. Lab records are well maintained by the students and it is duly signed by concerned faculty but could not find the lab manuals.
5. Most of the mining students have backlog problems in more than one subjects like Math, physics, basic electronics and mining subject.
6. Although special class are conducted for mining students, the backlog problem still exiting.
7. The 5th semester electrical students have started their project works, which is at initial state
8. No assignment/tasks are given to the mining students.
9. Lesson plan and attendance is carried out in ERP.
10. One month internship is given to the mining students at Sukinda mines.
11. Skill certification courses are given in Catia, lamp handling, PLC automation and CNC programming and maintenance.
12. A two day workshop has been conducted on adrino system.
13. E-classes are conducted by using projector but no E-content with them.
14. Life skill classes are conducted
15. As a part of industrial visit Labs like Yamaha, Ashok Leyland are visited by the students inside the campus.
16. Discussed with Prof. Amiya regarding result analysis subject wise and they are maintaining that.

C. School of Management

The following observations were made during our visit:

1. Status of effectiveness of CBCS for MBA/ BBA students:

- a. Choice of subject: No CBSE is offered to MBA, BBA
- b. Understanding of learning outcome: Students are satisfied with learning outcome of the respective subjects
- c. Lesson Plan shared: Lessons plans are shared with the students at the beginning of the students to MBA and BBA, except with 1st year B.Com Students
- d. Session wise progress review: Session wise progress review is done by the department, after checking the progress and performance of the students in the examinations and accordingly conducting the remedial classes to weak students.
- e. Clarity on assessment methods and implementation: Students are aware of the assessment criteria of the subjects in the beginning of the sessions, except 1st year B.Com. students
- f. Session wise use of reference materials (Video/online material etc.): Reference materials like PPT and case studies (soft copies) are provided, except few subjects of MBA second year.
- g. Subject related project identified, assigned, reviewed, assessment: Subject related projects are assigned by the concern faculties and assigned the tasks later on reviewing the performance through reports and presentations.
- h. Subject related assignment: Student are provided subject wise regular assignments
- i. Exposure visit: Recently students are visited Britannia, Parle-G and UMBC.

2. Theory Classes

- (i) Teaching Effectiveness (Understanding of concepts): Almost all students are happy with teaching pedagogy and delivery of the subjects in class.
- (ii) Overall Attendance in class: 70% to 80% of students are regular in classes.
- (iii) Learning Record: Learning records are maintained almost all subjects.

3. Practice/Project Classes

- (i) Verification of lab manual: In Communication lab manuals are followed by faculties, but not maintained in Lab
- (ii) Coverage of all experiments mentioned for Practice: Session wise mentioning the practices in the Lab manuals, but it was not shared with the students
- (iii) Verification of learning records: Students are verified their learning record after evaluation.

- (iv) Students' assessment: Communication faculties follow the oral and written test and given the grades on the bases of the role play, presentation and writing skills.
- (v) Project/Internship as per norms: Recently students visited Britannia, Parle-G and UMBC.

4. Domain Classes

- (i) Teaching Effectiveness (course outline and coverage): First time the Communication department introduced IELTS practice sessions and following listening, reading and writing practices.
- (ii) Faculty Involvement: English department faculty members are teaching IELTS.
- (iii) Student Involvement: Students are assigned the practices in communication labs
- (iv) Domain Partner performance: Online IELTS free software
- (v) Practice and Project undertaken: Practicing in Communication lab

5. Interaction with the HoD/Faculty

- I. Assignments: Faculty regularly providing unit wise assignments, collect and evaluate the assignments.
- II. Lesson Plan: Almost all the faculties are prepared the lesson plans.
- III. Evaluation Process: In the lesson plan they shown the evaluation process of the subject, students are aware about it.
- IV. Skill Certification Courses: No skill Certification courses offered. B.Com is planning to offer French Language, but it has not finalised.
- V. Placement Training/ LSD Classes: Here no LSD classes instead ACE sessions are taken by the faculty members, but the student response is very low.
- VI. Remedial classes: After the examination, the faculties are conducting tutorial classes to the weak students in weekends, but the attendance registrars are not available.
- VII. Result Analysis subject wise: Subject wise result analysis data is not available in the department, and the documents are not updated.
- VIII. Mentoring systems-- verify a few reports/ Career Plan: Mentoring system is implemented successfully. Each faculty is assigned 16-20 students. But the counselling/ discussion reports are not available with the faculty mentors. Mentoring is scheduled in the time table Wednesday last hour. And it will held twice in a month
- IX. MIS Usage: In MIS student attendance is updated regularly, except 1st Semester students
- X. Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.): Faculties are inviting resource persons and arranging the seminars departmental wise.
- XI. School of Management also arranging the Industrial visit for MBA, BBA and B.Com students for industrial visits, recently they visited Britannia and UMBC

6. Delivery of E-Content in E-Classroom

- Almost all the faculties are taking their classes in E-Classroom, and using the E-Content in the classes.

7. Interaction with corresponding Deans/PGP Coordinator

Discussion was held with the Dean School of Management, regarding the observations made by the team members in above issues and recommended for the improvement.

D. School of Applied Sciences

The following observations were made during our visit:

1. Status of effectiveness of CBCS for B.Sc./ M.Sc. students

- a. Choice of subject : Autonomy is provided to students on choice of subjects
- b. Understanding of learning outcome: learning outcome is satisfactory by students
- c. Lesson Plan shared: Shared through mail only. Not discussed with students. Learning objective and outcomes, course assessment method are missing.
- d. Session wise progress review: Overall class progress is satisfactory
- e. Clarity on assessment methods and implementation: Students have not understood about the process of evaluation from the beginning of the session except for few subjects
- f. Session wise use of reference materials (Video/online material etc.): Rarely used.
- g. Hands on Practice (Use of Machine/tool): Rarely used.
- h. Subject related project identified, assigned, reviewed, assessment: Projects are given for M.Sc. students.
- i. Subject related assignment: Regular assignments are provided to the students.
- j. Exposure visit: maximum students have not gone any exposure visit.

2. Theory Classes

- (i) Teaching Effectiveness (Understanding of concepts): Most of the students are happy with pedagogy and delivery of the subjects.
- (ii) Overall Attendance in class: More than 70%
- (iii) Learning Record: Subject wise learning records are found but in case of lab, it is not observed

3. Practice/Project Classes

- (i) Verification of lab manual: Experiment wise lab manuals are there but subject wise booklet are not there.
- (ii) Coverage of all experiments mentioned for Practice: All available experiments are covered. But in case of Botany and Zoology, laboratory set up process is going on. Due to large number of students, all students are not getting the chance to handle the equipment.
- (iii) Verification of learning records: Action learning records are found. But in the assessment section, no marks are posted.
- (iv) Students' assessment: Students are assessed regularly, but the marks are not informed after each lab.
- (v) Project/Internship as per norms: Projects are found for M.Sc. students.
- (vi) M. Tech/ M. Phil Thesis

4. Domain Classes (Going to implement soon)

- (i) Teaching Effectiveness (course outline and coverage)
- (ii) Faculty Involvement
- (iii) Student Involvement
- (iv) Domain Partner performance
- (v) Practice and Project undertaken
- (vi) Project outcome – product developed
- (vii) Internship arrangement
- (viii) Student feedback

5. Interaction with the HoD/Faculty

- (i) Assignments: Faculty regularly used to provide, collect and evaluate the assignment, but no faculty is following the proper format. None of the faculty has the hard copies of the assignment question.
- (ii) Lesson Plan: Soft copy of the lesson plans are found, as per the format given by their Dean. No documentation of Course file found. No hard copy of Attendance register found.
- (iii) Evaluation Process: Evaluation is different from Paralakhemundi Campus. Weightage for Assignment and Attendance not found.
- (iv) Skill Certification Courses: Skill course are going on as per the syllabus.
- (v) Placement Training/ LSD Classes: No such classes are going on.
- (vi) Remedial classes: Backlog classes are conducted but lacks documentation
- (vii) Result Analysis subject wise: Subject wise result analysis are there.
- (viii) Mentoring systems-- verify a few reports/ Career Plan: Mentoring system are found for B.Sc. students. For M.Sc. students, mentoring to be started. Documentation of Weekly attendances are not there. Career plan not started.
- (ix) MIS Usage: Faculties are updating the attendance & lesson plan only. In few subjects, the attendance is not given. Maximum faculty are unaware of ERP Android App (Cloud Campus)
- (x) Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.): Seminar and workshop are conducted.

6. Delivery of E-Content in E-Classroom :

E-contents are not available

7. Interaction with corresponding Deans/PGP Coordinator

Discussion regarding the observations made by the Team on above issues: The observations are discussed with each HoD separately.

E. School of Pharmacy and Life Sciences/ School of Forensic Sciences

The following observations were made during our visit:

- 1. Status of effectiveness of CBCS for B. Pharma./D. Pharma./M.Phil.(Life Science) and M.Sc.(Forensic Science) students**
 - a. Choice of subject: No CBCS system.
 - b. Understanding of learning outcome: learning outcome is satisfactory by students
 - c. Lesson Plan shared: Shared through ERP only. Not discussed with students. Learning objective and outcomes, course assessment method are missing.
 - d. Session wise progress review: Overall class progress is satisfactory
 - e. Clarity on assessment methods and implementation: Students have not understood about the process of evaluation from the beginning of the session except for few subjects
 - f. Session wise use of reference materials (Video/online material etc.): Rarely used.
 - g. Hands on Practice (Use of Machine/tool): Rarely used.
 - h. Subject related project identified, assigned, reviewed, assessment: Projects are given for M.Sc. students.
 - i. Subject related assignment: Regular assignments are provided to the students.
 - j. Exposure visit: maximum students have not gone any exposure visit.
- 2. Theory Classes**
 - (i) Teaching Effectiveness (Understanding of concepts): Most of the students are happy with pedagogy and delivery of the subjects.
 - (ii) Overall Attendance in class: More than 75%
 - (iii) Learning Record: Subject wise learning records are found but in case of lab, it is not observed
- 3. Practice/Project Classes.**
 - (i) Verification of lab manual: Detail lab manuals are not there.
 - (ii) Coverage of all experiments mentioned for Practice: All available experiments are covered.
 - (iii) Verification of learning records: Action learning records are found. But in the assessment section, no marks are posted.
 - (iv) Students' assessment: Students are assessed regularly, but the marks are not informed after each lab.
 - (v) Project/Internship as per norms: Projects are found for M.Sc. students.
 - (vi) M. Tech/ M. Phil Thesis
- 4. Domain Classes (Going to implement soon)**
 - (i) Teaching Effectiveness (course outline and coverage)
 - (ii) Faculty Involvement

- (iii) Student Involvement
- (iv) Domain Partner performance
- (v) Practice and Project undertaken
- (vi) Project outcome – product developed
- (vii) Internship arrangement
- (viii) Student feedback

5. Interaction with the HoD/Faculty

- (i) Assignments: Faculty regularly used to provide, collect and evaluate the assignment, but no faculty is following the proper format. None of the faculty has the hard copies of the assignment question.
- (ii) Lesson Plan: Lesson plans are found only on ERP. No documentation of Course file found. No hard copy of Attendance register found.
- (iii) Evaluation Process: Evaluation is different from Paralakhemundi Campus. Weightage for Assignment and Attendance not found.
- (iv) Skill Certification Courses: Skill course are going on as per the syllabus.
- (v) Placement Training/ LSD Classes: No such classes are going on.
- (vi) Remedial classes: Backlog classes are conducted but lacks documentation
- (vii) Result Analysis subject wise: Subject wise result analysis are there.
- (viii) Mentoring systems-- verify a few reports/ Career Plan: Mentoring to be strengthen. Documentation required. Career plan not started.
- (ix) MIS Usage: Faculties are updating the attendance & lesson plan only. In few subjects, the attendance is not given. Maximum faculty are unaware of ERP Android App (Cloud Campus)
- (x) Co-Curricular Activity (Seminar/Workshop/Industrial Visit etc.): Seminar and workshop are conducted.

6. Delivery of E-Content in E-Classroom :

E-contents are not available

7. Interaction with corresponding Deans/PGP Coordinator

- (i) Discussion regarding the observations made by the Team on above issues: The observations are discussed with Prof. Gurudatta Patnaik.

Mr. G. K. Sahu
Convener
Academic Audit Team

REPORT ON ACADEMIC AUDIT

Date: 29/12/2018

School : M S Swaminathan School of Agriculture

Campus: Paralakhemundi

The observations are made during our visit.

1. Theory Classes

(i) Teaching Effectiveness

Teaching is by way of interaction. The Synopsis, the course outlines, the power point presentations and the notes are kept on the website. The role of placing the notes on website may be discouraged.

(ii) Attention of the Students

The students are attentive in class by way of asking questions, seeking clarifications showing interest in the subject.

(iii) Feedback from the Students

Satisfactory

2. Practical/Practice Classes

(i) Verification of lab manual

Be precise, should involve the students to work in lab, more results aspects have to be given importance. Interpretation of results and conclusions. Avoid theoretical repetitions

(ii) Verification of lab records

The records and classwork has to be on a continuous system of evaluation when each class is given due importance along with the record submission and observations.

(iii) Students' field work

The students are exposed to various field practices and they do these operations themselves. In the process learn about the significance of operations.

(iv) Field Management by MSSSoA

Maintained neatly by the staff. However, the viable units have to be taken to the next level so that they become autonomous for the university and college.

(v) NSDC units and its activities

(vi) NSDC units as practical labs for students

These units are providing the platform for the students to get first hand knowledge and help in students becoming the knowledge centre in the village.

(vii) Students assessment

Students have expressed satisfaction about the units and showed enthusiasm in learning activities.

(viii) Feedback from the Students

Good. They have expressed their satisfaction on the functioning of field units. However, they need to be informed about the ways to make these units viable.

(ix) Project/Internship as per norms

- Yes -

3. RAWE/ AELP on Students' Learning & Development

- (i) Effectiveness of RAWE : The students gained first hand information about the socio-economic conditions of farmers in the village and to identify the gaps between technology and its adoption by farmers.
- (ii) Effectiveness of AELP : It is a useful program aimed at instilling confidence among students and also help the students in establishing their units at village level.
- (iii) Faculty Involvement : The faculty is taking utmost care in
- (iv) establishment of ELP units and in guiding the students to gain insights into the issues.
- (v) Student Involvement : They are getting involved in AELP activities.

However, they must be taught about the economics and sustainability of their units.

(vi) Quality of Reports

Needs improvement mainly from the standard of the viability, sustainability and financial aspects need to be minimized.

4. Interaction with the HoD / Faculty

(i) Assignments

- (ii) Lesson Plan : The lecture outlines are placed in the website. However detailed classroom lecture outlines need to be provided and more should be some probing questions, evaluation should be in library.
- (iii) Evaluation Process : Practical component has to be a system of continuous evaluations with about 50% of practical marks being allotted to classwork. This evaluation needs to be student oriented.

(iv) Field visits

Visited the experimental plots of students. These plots are well maintained with sowing process just completed. Proper labelling of experimental plots add aesthetic sense to our fields. It is desirable to keep log out of field near

(v) LSD Classes

we go to for the farm located about 10 kms away

(vi) Proctorial systems

working satisfactorily

(vii) MIS Usage :

It is extensively used for student information, academic information, examinations, registration fees, and other administrative tasks. It is being effectively utilized by the clientele.

REPORT ON ACADEMIC AUDIT

Date: 29/12/18

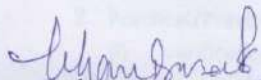
5. Delivery of E-Content in E-Classroom

Extensively used for class room teaching and the material is available on website. But it is desirable that the practice of uploading notes to website be avoided as it might reduce the interest in class room teaching.

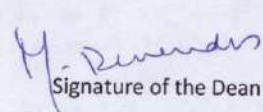
6. Interaction with corresponding Deans

(i) Discussion regarding the observations made by the Team on above issues.

Had a lengthy and fruitful discussion with the Deans especially in light of visit of LEAR accreditation committee. Made some suggestions particularly with reference to AECU and laboratory instruments maintenance, log books, preparation of laboratory manuals etc.


Prof. P.C. Rao 29/12/18

Signature of the Academic Audit External Member


Signature of the Dean 29/12/18

Best Practices of the Institution

Best Practice A

1. Title of the Practice

Use of ICT in Teaching Pedagogy & Skill development as a part of curriculum

2. Objectives of the Practice

Teaching Learning process through E-material and Tab:

- To achieve standardization in content delivery
- To present a tablet driven curriculum designed in an easy to learn format with solved question banks, lecture notes, presentations, and interactive assessments relevant to new age learning.
- To address the needs, increase access to higher educational opportunities through e-learning, and support the teachers to face the challenges of learning delivery.
- To re-define the role of teacher as central to create the learning Environment to facilitate higher order thinking and e-learning.
- To introduce tablet learning as a new pedagogy where there is a shift from Teaching to engagement.
- To provide a complete m-learning solution for learning on the go.

3. The Context

- *Context-aligned Curriculum*
There was the need to develop context specific digital material in order to be meaningful and relevant. Tablet-based learning developed a scalable, digital media based, education model, one which is led by context and puts the learner at the centre. For example, a fitter in an Industrial Training Institute needs to learn to set a turning job on a CNC machine. Generic CNC videos are widely available. But he will grasp the process much better if technical description, illustration and examples are suited closely to his cultural background and educational level, not merely his language.
- *Learner-Centered Learning*
Individual as well as group learning styles differ. The endeavour was to optimize the delivery based on the learner's lived context. The learners will get an opportunity to follow a non-linear path at a pace that meets their individual needs at that time, i.e. just-in-time learning.

4. The Practice

- Learner-centric approach:
 - A personalized mobile learning tool
 - Students are encouraged to learn beyond teaching and not to be confined within syllabus topics.
 - An interactive and engaging experience.

- Students can take up N number of assessment tests and improve performance
- Prepares the students for tomorrow
- Learning on the Move:
 - There is the flexibility in the learning spaces.
 - Students learn anytime, anywhere they wish.
- Communicate Effectively:
 - Students have a range of skills to express themselves not only through paper and pencil, but also audio, video, animation, design software as well as a host of new environments (e-mail, websites, blogs, e-learning, m-Learning etc.)
- Engage in Problem Solving:
 - Students have an understanding of how to apply what they know and can do to new situations.
- Analyze and Interpret Data:
 - Students have the ability to crunch, compare, and choose among the glut of data now available web-based and other electronic formats.
- Manage and Prioritize Tasks:
 - Students are able to manage the multi-tasking, selection, and prioritizing across technology applications that allow them to move fluidly among teams, assignments and communities of practice
- Ensure Security and Safety:
 - Students know and use strategies to acknowledge, identify, and negotiate security risks.

5. Evidence of Success

- Nurture learning: Students are excited about technology based education and show keen interest in this learning process.
- Exposure to Multiple Tests:
 - Online examination (ERP, other internet sites) Students are assessed through tests conducted online, which in turn leads towards best practice for appearing at future tests to be conducted by various recruitments.
 - Group presentations via blended learning (using internet and e-content material)
 - Assessment tests
- Analyze and Interpret Data:
 - Teachers are able to verify performance as well as weakness of student in understanding things such as subject topics and time management during test.
 - Successful Implementation: Successful implementation of Tablet-based learning at the University as an environment in which the learner's interaction with learning materials, peers, and/or instructors at home, in class, or in a team setting to support learning activities.

6. Problems Encountered and Resources Required

- Problems:
 - Resistance to adopt technology

- Faculty members need to be trained to use the tools and techniques, but they also have to be trained on the pedagogical potentials of these tools, by taking themselves online and blended courses.
- Slow Processing of Tablets
- Duration of battery-backup to be improved

Best Practice B

1. Title of the Practice

CUTM Qualification Frame Work

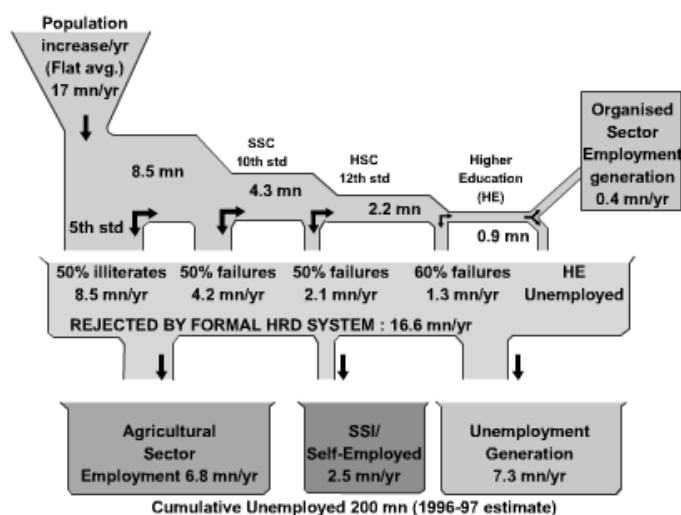
2. Objectives of the Practice

- The philosophy to evolve the qualification frame work is to enable a seamless pathway to all Indians to nurture their inherent capabilities to the best of their abilities. It is an integration of skill certification courses in to the Engineering curriculum aligning to National Skill Qualification Framework (NSQF).The School of Vocational Education and Training (SoVET) is an integral part of the University progressed to build a Career Path of the students from school drop out to Highest Degree.
 - The CUTM Qualification frame work is to enable all categories of students' access to ongoing skill development for attainment of qualifications.
 - A platform to improve their career expectations with enriched work place productivity.
 - They will be engaged in piloted projects of SoVET to avail Australian and European vocational qualifications.
 - New proposed choice based cafeteria-approach curriculum fitting into NSQF.
- The university offers the new curriculum from 2015 onwards. The salient features of course curriculum are:
 - 25% CORE SUBJECTS - Compulsory
 - 15% Theory Subjects
 - 10% Practice Courses
 - 75% OPEN - to the choice of a student – both Theory and Practice courses (30% Basic courses + 45% Professional Choices).
- Basic Courses (30%)
 - Basic Engineering 10%
 - Basic Sciences 10% Theory & Practice
 - Humanities & Management 10%
- Professional Choices (45%) from a pool of 300+ theory subjects and 100+ Practice subjects (Inter Disciplinary and Trans Disciplinary).
 - To become a Practical Engineer - a student can opt as many as practice courses to a maximum of 85%.
 - To become a Design Engineer – a student can pursue as many theory subjects as he/she wishes upto 90%.
 - Most of the practice courses are CERTIFIED.

3. The Context

- High dropout rates across the HRD system result in 16.6 million dropouts every year with 12.8 million youth need initial vocational training every year; existing Private & Public Institutional Capacity is 3.1 million.
- India has under 10,000 ITI's and VET schools, China has 500,000 senior secondary vocational education and training schools.
- Lack of integration of formal education, vocational education & job market resulting unemployment generation on one hand and ironically a skill shortage in the industry on the other.

- Problem Description



- Contextual features:
 - Qualifications are divided into levels and students are provided multiple (direct or lateral) entry and exit points at every level provided to a certain level. It feeds into the under graduate engineering program of the university.
 - It provides a student a calibrated and guided entry into formal education system of the University irrespective of Educational Background.
 - It is a competency based model and each of the qualifications is based on the vocational competencies required at various levels
 - The Framework weights practical skills initially. Theoretical inputs increase as the levels increase.

4. The Practice (National Skill Qualification Framework)

Level	Qualification	Certification
Level 1 Certification	Attended School and qualify in pre assessment test	NCVT approved one year program
Level 2 Certification	Level 1 certification of University & 10 th pass from a recognized board Or 10 th pass certification from any recognized board	NCVT approved two year programme
Levels 3 & 4 Certification	Level-2 certification of university Or I.T.I pass from NCVT approved institution. Or 12 th pass certification from any board and has to qualify in pre assessment test.	Diploma second and third year equivalence
Level 5,6,7 Certification	Level 4 certification of University Or Diploma from any recognized council	B.Tech 2 nd year to final year equivalence
Level 8 & 9	Level 7 or B.Tech	M.Tech level
Level 10	Level 9 or M.Tech	Doctorate

Centurion Vocational Education Qualification Frame aligned to National School Qualification Framework

Sl.No	Level	Entry Qualification	Exit Qualification Equivalence	Duration of Training	Credits
1	Level 1: Foundation Program	L0 to be defined	IX	1 Year	45
2	Level 2: Foundation Program	L1	X	1 Year	45

Sl.No	Level	Entry Qualification	Exit Qualification Equivalence	Duration of Training	Credits
3	Level 3: Certificate Program	L2	XI or 1 yr ITI	1 Year	45
4	Level 4: Advanced Certificate Course	L3	XII or 2 yr ITI	1 Year	45
5	Level 5: Diploma	L4	Diploma	1 Year	45
6	Level 6: Advanced Diploma	L5	Advanced Diploma	1 Year	45
7	Level 7: Bachelors Degree (BVoc)	L6	Bachelors Degree	1 Year	45
8	Level 8: Bachelors in Technology (B Tech)	L7	B Tech	1 Year	45
9	Level 9: Masters in Technology (M Tech)	L8	M Tech	1 Year	45
10	Level 10: Doctorate	L9	Doctorate	1 Year	45

5. Evidence of Success

- The skilled development course with hands-on experience is being integrated with regular B.Tech. curriculum by offering these courses at 6th and 8th Semester level. Some of the courses offered are CNC programming and operation, Automotive Electrical system, Automobile operation and maintenance, PLCs, Embedded system, project based C programming, Web Designing, Finance Management, reverse engineering, refrigeration and air conditioning - installation & maintenance, STAADPRO and GIS, Android. The interested students can go for certification from the authorized assesses.

6. Problems encountered and resources required

- The choice based curriculum has to provide 300+ theory and 400+ practice oriented courses.
- More labs and more equipment are required
- Faculty are to be trained to guide the students properly

SWOC Analysis

Strengths

- 1) State of the art curriculum and pedagogy
 - a) Integrating Skills into higher Education Curriculum
 - b) Skill development and employment creation for School dropouts, primarily ST, SC, Women and Differently abled
 - c) Implementation of Choice Based Credit System
 - d) Domain specific curriculum
 - e) Experiential learning through unique curriculum of theory-practice-project-internship
 - f) Focus on New Age Teaching methods while nurturing and developing its faculty
 - g) Building a large number of electives, and providing multiple career paths to its students.
 - h) Integration of life skill into regular curriculum (culture, sports, yoga, meditation and social outreach are given due credit)
 - i) Continuous innovation in teaching-learning practices:
 - i) The Centurion Tablet, with pre-loaded courseware, quizzes, useful links to internet, questions, etc.
 - ii) Faculty as Foster Parents
 - iii) Accelerated Learning through Immersion Programs
 - iv) Outbound 24by7 learning through holistic schedules.
 - v) Yoga and Meditation taught to students and faculty alike.
 - vi) Project based Teaching methods in multiple disciplines (engineering, management, and English)
- 2) State-of-the-art physical infrastructure
 - a) Industry sponsored labs and workshops with manufacturing and testing capability
 - b) Enabling learning environment outside the class room through outside exhibits, WIFI
 - c) Class Rooms, Seminar Halls, Hostels, Faculty and Staff quarters, Sports Facility, Canteens for students, faculty and staff, Bank, ATMs and Post Office, Multi Gymnasium, Medical facility, Auditorium, Transport facilities for students and faculty
 - d) Well stocked library of books (12942 title and 53745 volumes), journals (84 National journals, 29 International journals, 56 magazines) and e journals (IEEE ASPP, ELSVIER, J-GATE, WILLY BLACKWELL, ASTM, ASME, DL, NLIST Programme)
- 3) Linkages with industry, government and civil society organizations
- 4) Senior faculty with good experience from industry and academia
- 5) Continuous faculty development program within centurion teacher certification system
- 6) Capability to develop students with low prior academic achievement and coming from socially disadvantaged section.
- 7) Ability to integrate university activities with the community and local context
- 8) Existing social entrepreneurial outreaches which provide a living socio-economic and cultural lab to faculty and students

Weaknesses

- 1) The university operates in a physical resource constrained environment (lacks adequate buildings for research labs in renewable energy, knowledge society, hostels and lifts in the hostel)
- 2) Lacks advance equipment, instruments and software in manufacturing, testing, design, welding, renewable energy, language lab, VR and AR lab and other labs.
- 3) Lacks adequate financial resource because of its student base from the bottom of the pyramid segment
- 4) Unable to attract many high quality faculty because of limited financial resources and locational disadvantages

Opportunities

- 1) The region where the university is located do not have many good quality higher education institutions
- 2) Large number of school drop outs and unskilled workforce in the state
- 3) Large demand for skilled manpower within and outside the state
- 4) Odisha has rich natural resources and high potential for forward and backward integration of extraction based industries. Unfortunately, such industrialization is difficult because of local people not seeing opportunity in its development, thus becoming hostile. Hence, University like Centurion can play the role of right type of human resource development.
- 5) Low higher education enrolment ratio in the state
- 6) Students coming out of the existing higher education institutions in the region have very low employability and entrepreneurial orientation
- 7) Most of the state, market and civil society organizations in the region are undermanaged and mismanaged
- 8) There is little context specific knowledge about the region and the needs of the people and organizations. Ensuring food security, enhancing nutritional status, eliminating distress migration, reducing malaria, morbidity, infant and maternal mortality, improving female literacy and women's access to land and microfinance, ensuring sustainable livelihood security, strengthening governance and management of local institutions and building capacity of human resource, arresting natural resource degradation, introducing appropriate technology are the challenges the region urgently faces.
- 9) Development interventions in the region require qualified manpower with right attitude. There is an urgent need and unprecedented opportunity to develop and promote action programs to transform the lives of underprivileged in the region through development of their livelihood capability (knowledge, skill and attitude) and providing access to sustainable income generating opportunities (technology-based market linked programs).
- 10) The area has high level of educational and entrepreneurial need considering the availability of rich natural resources such as land, water, forest, minerals and biodiversity; weak supply chain for agriculture, manufacturing and service sector; low level of socioeconomic development. There is need for multi-disciplinary studies in different areas.

Challenges

- 1) Environmental Challenges
 - i. Social friction in the form of left-wing extremism
 - ii. Remoteness of the Paralakhemundi campus (industrial facility, lack of good quality secondary institutions, multispecialty hospitals, connectivity, etc.)
- 2) Lack of Students' Aspiration because of weak foundation and poor world view
 - i. Most of the students do not have the habit of reading newspapers, lack the awareness, self-confidence and aspiration that an urban educated and upper-middle class student is blessed with.
 - ii. The challenge is transforming our students into self-confident and motivated citizens with humane values.
- 3) Placement
 - i. In a market-led society, promoting individualism, following a principled view does impact our students' access to certain companies. Educating students to follow an ethical practice while sacrificing the immediate gain for the long-term benefit is a challenge that the University undertakes.
 - ii. Since, Centurion University, by design, admits students from under-privileged backgrounds, often with weak English language competency and poor career (below 60% marks in 10th or 12th classes), providing them gainful employment is a challenge. We accept the challenge with pride and prepare them for their rightful place in society through context specific extra training.