



The Annual Quality Assurance Report (AQAR) of the IQAC

Year: 2016-17

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

Paralakhemundi

City/Town

Paralakhemundi, 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. D. Nageswara Rao (2010-July 2016)
Prof. Haribandhu Panda (Continuing since 01.08.2016)

Tel. No. with STD Code:

06815-222020

Mobile:

+91 93373 88801

Name of the IQAC Co-ordinator: Paralakhemundi Campus: Dr. M. Abid Hussain
Bhubaneswar Campus: Prof. Subrata Sarangi

Mobile: Dr. Abid Hussain: 76088 79665
Dr. Subrata Sarangi: 77357 82033

IQAC e-mail address: abidhussain@cutm.ac.in
subrata.sarangi@cutm.ac.in

1.3 NAAC Track ID(For ex. MHC0GN 1887) ORUNGN 11310

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: http://cutm.ac.in/index.php?option=com_content&view=article&id=746&Itemid=1164

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: 2016-17

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

- i. AQAR 2014- 2015 submitted to NAAC, Bengaluru on - Not Applicable
- ii. AQAR 2015- 2016 submitted to NAAC, Bengaluru on – 13.04.2017

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 (e.g. AICTE, BCI, MCI, PCI, NCI) Yes No

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 (PhysEdu)

TEI (Edu) Engineering Health Science Management

Others (Specify)

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

1.13 Special status conferred by Central/ State Government- UGC/CSIR/DST/DBT/ICMR, 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 – PKD, Bhubaneswar Campus – BBR

2.1	No. of Teachers	PKD: 10	BBR: 16
2.2	No. of Administrative/Technical staff	PKD: 1	BBR: 3
2.3	No. of students	PKD: 1	BBR: 1
2.4	No. of Management representatives	PKD: 1	BBR: 1
2.5	No. of Alumni	PKD: 1	BBR: 1
2.6	No. of any other stakeholder and community representatives	PKD: 1	BBR: 1
2.7	No. of Employers/Industrialists	PKD: 1	BBR: 1
2.8	No. of other External Experts	PKD: 1	BBR: 1
2.9	Total No. of members	PKD: 17	BBR: 25

2.10 No. of IQAC meetings held

PKD: 4	BBR: 7
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2.11 No. of meetings with various stakeholders:

Faculty

PKD: 3	BBR: 4
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Non-Teaching Staff/Students

PKD: 2	BBR: 2
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Alumni

PKD: 1	BBR: 1
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Others

PKD: 0	BBR: 0
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2.12 Has IQAC received any funding from UGC during the year? Yes / No

If yes, mention the amount

NA

2.13 Seminars and Conferences (only quality related)

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

Total

3

Level International

0

 National

0

 State

0

 Institution

3

(ii) Themes

Choice Based Credit System, Assessment System

2.14 Significant Activities and contributions made by IQAC

- i. NAAC accreditation with 'A' Grade
- ii. India Rankings NIRF
- iii. Data submission for AISHE, MHRD
- iv. 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. The ERP of the University is used for feedback collection and analysis.

2.15 Plan of Action by IQAC and Outcome

The plan of action chalked out by the IQAC at the beginning of the year towards quality enhancement and the outcome achieved by the end of the year

Plan of Action	Achievements
i. To conduct Academic Audit ii. Engaging with Stakeholders for quality enhancement iii. Engagement with faculty for design of curriculum for CBCS and industry specific domains	i. Conducted the Academic Audit for 2016-17. The report of the audit is available with the Registrar of the University ii. Coordinated the meetings with parents, training and placement cell, alumni and industry personnel iii. Meetings were organised with faculty, alumni and industry for offering CBCS and developing domain based syllabus.

Academic Calendar of the year attached as Annexure II

2.15 Whether the AQAR was placed in statutory body. Yes / No

Management

Syndicate

Any other body

Provide the details of the action taken

The AQAR report was placed and discussed in the Senior Management Team and the Board of Management meeting along with the University Annual report for approval. The report was appreciated and approved.

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	12	1	13	13
PG	15	3	18	18
UG	20	2	22	22
PG Diploma	0	0	0	0
Advanced Diploma	0	0	0	0
Diploma	9	3	12	12
Certificate	3	0	3	3
Others	0	0	0	0
Total	59	9	68	68

Interdisciplinary	2	0	0	0
Innovative	0	0	0	0

1.2 (i) Flexibility of the Curriculum: CBCS/Core/Elective option / Open options CBCS and Core

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	68
Trimester	-
Annual	-

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

Mode of feedback: ✓ Online ✓ Manual

N.A.

 Co-operating schools (for PEI)

*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 introduced 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. The CBCS Syllabus for B.Tech Programmes offered by the School Engineering and Technology (SoET) was introduced during 2015-16. The syllabi of B.Tech. programmes offered by all Engineering departments were thoroughly reviewed and updated.
- 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 related 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.

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

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
305	253	19	33	-

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

73

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
253	0	19	0	33	0	0	0	305	0

2.4 No. of Guest and Visiting faculty and Temporary faculty

Guest Faculty	Visiting Faculty	Temporary Faculty
17	9	1

2.5 Faculty participation in conferences and symposia

No. of Faculty	International level	National level	State level
Attended Seminars/Workshops	16	40	3
Presented papers	19	11	0
Resource Persons	3	1	1

2.6 Innovative processes adopted by the institution in Teaching and Learning

- i. Use of ICTs in teaching-learning process: Communicating course outline, session plan, reading material, examination schedule, assessment, feedback and results; and execution of projects and assignments
- ii. Use of videos and simulation software and other technologies for improving learning.
- iii. Learning by doing and Learning by discovery through Project/ Practice/ Case

- Studies
- iv. Domain based learning to realise current industry requirements through active involvement of industry and other organisations in curriculum development, delivery, assessment and internship
 - v. Skill courses imparted to students of all programmes of the University to enhance self-confidence and employability
 - vi. Promoting self-employment through entrepreneurship development programs.
 - vii. Implementation of peer learning and outside class room learning (Tarang Bazar, Urban Microbusiness Centre Operation, etc.)
 - viii. Engagement with community and organisations to solve real-life problems through case studies, assignments, projects and internships
 - ix. Student-faculty joint projects in software development and software engineering.
 - x. Enabling eco-system for cohabiting and co-learning of youth from different socio-economic backgrounds and educational levels.

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

291

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

- i. External examinations for labs and projects
- ii. Examinations on Demand (EOD) throughout the year for clearing back papers
- iii. Automated examination scheduling and grading using Examination Management Systems
- iv. Bar Coding of University examination answer scripts before evaluation
- v. Online Quizzes with MCQs to check the students' learning behavior
- vi. Photocopies of evaluated answer scripts are provided to students to enhance evaluation system transparency
- vii. Publication of result within a month of examination

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
97	61	73

2.10 Average percentage of attendance of students:

85.1%

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	59	33	33	-	-	55.9
CSE	21	13	13	-	-	61.9
ECE	26	14	14	-	-	53.8
EEE	27	16	16	-	-	59.3
ME	93	69	69	-	-	74.2
TOTAL	226	145	145	-	-	64.2

Bhubaneswar Campus (B. Tech.)						
Branch	Total Appeared	Total Pass	1st Division	2nd Division	3rd Division	Total Pass %
CE	98	89	89	0	0	90.81
CSE	61	49	48	1	0	80.32
ECE	38	24	24	0	0	63.15
EEE	98	78	78	0	0	80.00
ME	237	196	187	9	0	82.70
TOTAL	532	436	426	10	0	81.95

Parlakhemundi Campus (MBA)						
Branch	Total Appeared	Total Pass	1st Division	2nd Division	3rd Division	Total Pass %
MBA	13	3	3	-	-	23.1

Bhubaneswar Campus (MBA)						
Branch	Total Appeared	Total Pass	1st Division	2nd Division	3rd Division	Total Pass %
MBA	63	45	36	8	1	72

Parlakhemundi Campus (M. Tech.)						
Branch	Total Appeared	Total Pass	1st Division	2nd Division	3rd Division	Total Pass %
Mechanical: Design and Manufacturing Engineering	2	2	*	*	*	100
Mechanical: ISDM	5	5	*	*	*	100
Civil-Hydraulics	2	2	*	*	*	100
EEE - Power System & Control Engineering	5	5	*	*	*	100
ECE- VLSI Design Engineering	4	4	*	*	*	100
TOTAL	18	18	NA	NA	NA	100

*Results recently published; grade sheets are not yet made available.

Bhubaneswar Campus (M. Tech.)						
Branch	Total Appeared	Total Pass	1st Division	2nd Division	3rd Division	Total Pass %
Computer Science Engineering	3	3	3	0	0	100
Communication Systems Engineering	3	3	3	0	0	100
Design and Manufacturing Engineering	6	3	3	0	0	50
Power System & Control Engineering	12	7	7	0	0	59
Structural Engineering	3	3	3	0	0	100
TOTAL	27	19	19	0	0	70

Bhubaneswar Campus (B.Sc)							
Branch	Total Appeared	Total Pass	Distinction	1st Division	2nd Division	3rd Division	Total Pass %
Chemistry	18	16	2	16	0	0	88.88

(Hons)							
Mathematics (Hons)	8	6	1	6	0	0	75
Physics (Hons)	24	21	3	21	1	0	92
BSc IT	18	14	0	14	0	0	77.77

Bhubaneswar Campus (M.Sc)							
Branch	Total Appeared	Total Pass	Distinction	1st Division	2nd Division	3rd Division	Total Pass %
Chemistry	27	27	NA	27	0	0	100
Mathematics	3	2	NA	2	0	0	67
Physics	37	37	NA	37	0	0	100

Total number of Ph.D. awarded during 2016-17:

4

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, observation in class rooms and formal feedback sessions. Students, alumni, industry experts and faculty from other institutions are coopted in teaching-learning development process. These approaches are blended with class room teaching based on the feedback received from students, faculty and result analysis.

2.13 Initiatives undertaken towards faculty development

Faculty/Staff Development Programmes	Number of faculty benefitted
Refresher courses	3
UGC – Faculty Improvement Programme	0
HRD Programme	0
Orientation Programme	25
Faculty exchange Programme	0
Staff training conducted by the university	218

Staff training conducted by other institutions	15
Summer/Winter Schools, Workshops, etc.	4
Others	3

2.14 Details of Administrative and Technical staff

Category	No. of permanent employees	No. of vacant Positions	No. of permanent positions filled during the year	No. of positions filled temporarily
Administrative Staff	187	0	20	23
Technical Staff	105	0	24	14
Attendant	64	0	6	0
Driver	39	0	0	0
Gardener	25	0	7	0
Security Guard	25	0	9	0
Any Other	40	0	8	0
Total	485	0	74	37

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 organised at various institutions. The university conducts student technical festival in both the campuses.
v.	Weekly seminars are organised with internal and external Professors/Researchers as resource persons to motivate the faculty and students to undertake context specific research activities.

3.2 Details regarding major projects

	Completed	On going	Sanctioned	Submitted
Number	2	2	3	2
Outlay in Rs. lakhs	14.9	9.97	11.17	44.4

3.3 Details regarding minor projects

	Completed	On going	Sanctioned	Submitted
Number	0	1	1	1
Outlay in Rs. lakhs	0	10	10	0

3.4 Details on research publications

	International	National	Others
Peer Review Journals	55	13	0
Non-Peer Review Journals	26	0	0
e-Journals	4	0	0
Conference proceedings	14	2	0

3.5 Details on Impact factor of publications

Range	<i>h</i> -index	Average	Nos. in SCOPUS
1-15	1	4.524	19

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

Nature of the Project	Duration Academic Year	Name of the Funding Agency	Total Amount Sanctioned (in Lakh)	Received (in Lakh)
Major projects	2016-17	Union Bank of India, SBI Foundation, Ministry of Social Justice Welfare, SUN Oven International, MSME, IDCO	609	447
Minor Projects	2016-17	Lutheran Worldwide Services, Odisha Society of America, DISHA-ECCE Project	10.5	9.5
Industry sponsored	2016-17	OHPC, OPTCL, ADANI	82.2	82.2
Students research projects (<i>other than compulsory by the University</i>)	2016-17	CUTM	10	
Any other (Specify)		--	--	--
Total	2016-17		711.7	538.7

3.7 No. of books published

With ISBN No	Chapters in Edited Books	Without ISBN No.
-	-	6

3.8 No. of University Departments receiving funds from

UGC-SAP	CAS	DST- FIST	DPE	DBT SCHEME/FUNDS
0	0	0	0	0

3.9 For colleges

Autonomy	CPE	DBT Star Scheme	INSPIRE	CE	Any Other (specify)
0	0	0	0	0	0

3.10 Revenue generated through consultancy (in Lakhs)

316

3.11 No. of conferences organized by the Institution

Level	International	National	State	University	College
Number	3	2	7	9	9
Sponsoring agencies	IEEE, CUTM and Gerontological Society	Gram Tarang Employability Training Services, SELCO	Gram Tarang Inclusive Development Services, Harsha Trust, BREDS	Gram Tarang Foods, Urban Microbuisness Centre	CUTM

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

21

3.13 No. of collaborations

International	National	Any other
11	26	0

3.14 No. of linkages created during this year

37

3.15 Total budget for research for current year in lakhs

From Funding agency	From Management of University/College	Total
157	52	209

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	30
	Granted	--
International	Applied	--
	Granted	--
Commercialised	Applied	--
	Granted	--

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
2	3	2	1	0	0	8

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

21

and students registered under them

40

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

5

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

JRF	SRF	Project Fellows	Any other
1	0	1	1

3.21 No. of students Participated in NSS events

University Level	State Level	National Level	International Level
685	533	5	0

3.22 No. of students participated in NCC events

University level	State level	National level	International level
32	1	0	0

3.23 No. of Awards won in NSS

University level	State level	National level	International level
0	0	0	0

3.24 No. of Awards won in NCC

University level	State level	National level	International level
0	0	0	0

3.25 No. of Extension activities organized

University forum	College forum	NCC	NSS	Any other
13	15	4	30	34

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

- i. Dengue Awareness Camp: In collaboration with Bhubaneswar Municipal Corporation, sensitised every household in the Telugu Basti, VaniVihar on 30th July 2016.
- ii. 70th Independence Day celebration on 15th August 2017
- iii. Out Campus Voluntary Blood Donation Camp: Two out-campus voluntary blood donation camps were held in collaboration with AIIMS, Bhubaneswar on 20th August 16 and 21st September 2016. Respectively 56 units and 25 units of Blood were donated on these occasions.
- iv. National Sports Day: National Sports Day was celebrated on 29th August.
- v. Eye Check-up camp: On 8th September 2016 National Eye Donation Day was celebrated by the School of Paramedics and Allied Health Sciences (SPAHS) through an Eye Check-up camp.
- vi. ENGINEER'S DAY: The Engineers' day was celebrated on 15th September 2016 through technology exhibitions, poster presentations, debates and lectures.
- vii. Hindi Divas (14 September): CUTM students topped in Hindi Debate and JAM competition during the Hindi Divas celebration at IIT Bhubaneswar.
- viii. Mega Voluntary Blood Donation Camp (22nd October 2016): CUTM students, staff and faculty donated 327 Units of Blood at this 12th Blood drive in the campus.
- ix. Celebration of Birth Centenary of Legendary Late Biju Patnaik on 23rd Nov 2016
- x. 4th CUTM Convocation on 26th November 2016
- xi. International Volunteers' Day 5th December 2016: The Youth Red Cross volunteers from CUTM campus along with Odisha Red Cross volunteers organized a Community Cleaning Drive near Unit-1 market area, Bhubaneswar.
- xii. Workshop on "Internet of Things was conducted in Centurion University Bhubaneswar Campus from 20th to 24th Dec 2016.
- xiii. Celebration of Mission Ashra & People's Forum: CUTM students participated in the Silver Jubilee Celebration of Mission Ashra & People's Forum, Working for the Cause, Care & Concern of Mentally Ill & Mentally Challenged Destitute Women, on 27th December 2016 evening.
- xiv. State level event on Declining Child Sex Ratio on 29th December 2016: Participated in the awareness rally on declining child sex ratio in Odisha organised by Center for Action Research and Documentation (CARD), on the theme "Kanya Ek Ujjwal Taraka Banchibaku Dele Chhuinba Aakash".
- xv. Inter-College Sports Tournament (SPARKS 2k17): Inter-college sports meet was organised by Centurion University from 2nd January to 18th January. 10 colleges

- from Odisha and outside took part in different sports event like Cricket, Football, Volleyball, Basketball, Lawn Tennis (Singles & Doubles), etc.
- xvi. Volunteering in Tata Steel Bhubaneswar Half Marathon: 25 Centurions volunteered at Marathon organised by Tata Steel and Govt. of Odisha held on 8th January at Kalinga Stadium.
 - xvii. 68th Republic Day was celebrated in CUTM, Jatni Campus
 - xviii. Organ and Body Donation Initiative: On 30th January 2017, Centurions signed the pledges and stood first in Odisha in number of pledges.
 - xix. National Science Day 2017: The School of Applied Sciences (SoAS) and Science Club ILLUMINATI took the lead in National Science Day celebration at the University on 28th February 2017. Science exhibition, Debate, Quiz and lectures were key events.
 - xx. Gajajyoti 2017: The 6th Annual Techno-Management Cultural Sports Meet of CUTM, christened as Gajajyoti 2017 was celebrated on 1-2 March 2017.

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)	148.54	52.79	CUTM	201.33
Class rooms	142	84	CUTM	226
Laboratories	162	65	CUTM	226
Seminar Halls	18	9	CUTM	27
No. of important equipment purchased (\geq 1-0 lakh) during the current year.	156	63	CUTM	219
Value of the equipment purchased during the year (Rs. in Lakhs)	2,291.29	236.04	CUTM	2527.3
Others	-	-	-	-

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.

4.3 Library services

	Existing		Newly added		Total	
	No.	Value (Rs lakhs)	No.	Value (Rs lakhs)	No.	Value (Rs lakhs)
Text Books	74,134	282.61	574	1.69	74,708	284.3
Reference Books	19,003	13.48	534	2.47	19,537	15.95
e-Books (Available in Subscribed resources (NLIST, DELNET))	6000		-	-	6000	
Journals	170	4.54	34	0.74	204	5.28
e-Journals (IEEE ASPP, Elsevier, ASME, JSTOR, Jgate)		28.6	-	-		28.6
Digital Database	DELNET,	0.4	-	-	DELNET,	0.4

	NDL				NDL	
CD & Video	3,061		7	-	3,067	

4.4 Technology up-gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Others
Existing	2,944	42	1GBPS, BSNL 155 MBPS	3	1	28	11	0
Added	85	1	1 GBPS	-	-	-	-	-
Total	3,029	43	1GBPS, BSNL 155 MBPS	3	1	28	11	0

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 use 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.

4.6 Amount spent on maintenance (Rs in lakh)

ICT	Campus Infrastructure and facilities	Equipment	Others	Total
16.92	102.41	25.69	26.09	171.11

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. Dissemination of information regarding the Academic and Examination Rules is carried out during induction programs for the benefit of newly admitted students.
- v. 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.

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, 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. For alumni, individual records are kept and upgraded by a dedicated Cell in the University for monitoring their progress. Their involvement in admission, curriculum development and delivery, training, internship and placement, and University governance is also keenly sought.
- iv. The Culture Sports and Responsibility (CSR) Cell of the University, through its 20-odd Clubs (each focussing some aspect of CSR) continuously strives to engage students in curricular and extra-curricular activities of their liking.

5.3 (a) Total Number of students

UG	PG	PhD	Others
2,378	306	4	NA

(b) No. of students from outside the state

801

(c) No. of international students

1

MEN		WOMEN	
Number	%	Number	%
1,963	73.0	725	27.0

Last year						Current year					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
1233	236	158	872	1	2,500	1294	327	164	862	0	2,647

Demand ratio: 1.4

Dropout (%): 1.2

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

- i. Continuous and rigorous assessment through industry acclaimed and adopted testing platforms of Aspiring Minds (AMCAT) and Aon Hewitt (CoCubes)
- ii. Continuous grading and assessment internally on a 10-point Trump Cards' grid for customised training and coaching for competitive exams like GATE, Civil Services, IES, and Bank PO Exams.

No. of students beneficiaries

734

5.5 No. of students qualified in these examinations

NET	N.A.	SET/SLET	0	GATE	11	CAT	N.A.
IAS/IPS	N.A.	State PSC	N.A.	UPSC	N.A.	Others	-

5.6 Details of student counselling and career guidance

- i. For personal counselling, 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 counselling 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.

No. of students benefitted

453

5.7 Details of campus placement

No. of Organizations Visited	<i>On campus</i>		<i>Off Campus</i>
	No. of Students Participated	No. of Students Placed	No. of Students Placed
193	1,127	516	124

5.8 Details of gender sensitization programmes

- 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.
- ii. Gender sensitisation 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.
- 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.

5.9 Students Activities

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

State/ University level	National level	International level
787	132	2

No. of students participated in cultural events

State/ University level	National level	International level
667	145	2

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

	State/ University level	National level	International level
Sports	87	12	0
Cultural	77	10	0

5.10 Scholarships and Financial Support

	No. of students	Amount (Rs in lakh)
Financial support from institution	601	83
Financial support from government	657	649
Financial support from other sources	4	5
Number of students who received International/ National recognitions	-	-

5.11 Student organised / initiatives

	State/ University level	National level	International level
Fairs	11	1	1
Exhibition	10	2	1

5.12 No. of social initiatives undertaken by the students

52

5.13 Major grievances of students (if any) redressed:

- i. The access points for enabling WIFI facility was installed in all hostels.
- ii. Extracurricular activities increased. Intercollege sports competitions organised.

Criterion – VI

6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

VISION

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

- Learning: Hands on, Experience based and Practice oriented
- Ideas: Make a difference through appropriate and relevant innovation and actionable research.
- Value: Shaping Lives, Empowering Communities and creating Nano, Mini and Micro enterprises.
- Experience: Quantifiable, Sustainable, Scalable and Replicable while striving to create a sense of ultimate delight among all stakeholders.

6.2 Does the Institution have a Management Information System

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

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

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 finalisation.
- 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.

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. Transparency in assessment
- v. Application of ICT in assessment and reporting
- vi. 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-journals, e-books and digital database.
- iii. High speed campus-wide internet and intranet helps in data access.

6.3.6 Human Resource Management

- i. University follows open and all India search for faculty and key administrative resources. For ease of access by potential faculty, e-application is encouraged. Wide publicity for recruitment and promotion is given through website, electronic and print media
- ii. Attention is given to ensure diversity of human resources (gender, religion, language, caste and differently abled)
- iii. The university has allocated budget for skill development. It deputed faculty to national or international institution of repute.
- iv. Performance based incentive system is in place for encouraging faculty and staff.

6.3.7 Faculty and Staff recruitment

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 seminar and interview by a panel of experts.

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.

6.3.9 Admission of Students

The Courses offered by Centurion University are widely publicised through bill boards, electronic and print media, social media and internet. The transparency in the admission process is ensured by clearly indicating number of seats available, eligibility criteria and the process of admission. The University does not charge capitation fee. Affirmative principle is followed for inclusive admission.

Candidates seeking admission to CUTM courses come through different entrance examinations, including Centurion University Entrance Examination (CUEE), conducted by the University. Students can apply online or offline to the University. Seat allocation is done on merit basis i.e. based on the performance in the Entrance Examination. Counselling Schedule is published in the Centurion University Website on the day of declaration of result itself. 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. 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	<ul 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 campus iii. Canteen services in the campus iv. Accommodation in the campus v. ATM, GYM, Swimming pool and other sports facilities in the campus vi. Transport services for off-campus and on-campus residents
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6.5 Total corpus fund generated (Rs lakhs)

346

6.6 Whether annual financial audit has been done

Yes

Y

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.

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

For UG Programmes Yes No

For PG Programmes Yes 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 some of the ideas that have been implemented include:

- i. Open book examinations for certain papers in different semesters
- ii. Introduction of external examinations for labs and projects.
- iii. Introduction of theoretical questions relating to practice in the written examinations.
- iv. Examinations on demand throughout the year for backlog papers
- v. Introduction of relative grading
- vi. Automation of examination scheduling and grading using a software (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 of 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. 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.

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. A number of individuals rose up in the career hierarchy through structured programs.

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 biofertiliser
- 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

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

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 biofertiliser production to farmers

Innovations in Institution Development

- i. Pan-India service diversification: Incorporation of Skill Assessment Cell of the University

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. Skill Integration in Curricula
- ii. Community Outreach

The details are in *Annex-V*.

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 biofertiliser and biopesticide 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

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; M.Sc. (Agriculture), B.Sc. (Fisheries), Certificate courses in Medical Lab Technician (MLT), MBA (Agribusiness Management).
- 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.
- 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.

Name: Subrata Sarangi



Signature of the Coordinator, IQAC

Name: Haribandhu Panda



Signature of the Chairperson, IQAC

Abbreviations

AAJ	-	Alumni Association of JITM
CAS	-	Career Advancement 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 Examination
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 2016-17

Semester	Internal Examination			End Semester Examination
	1	2	3	
Odd (1 st July – 31 st December 2016)	4th Year: 30 July 2016	15 August 2016	5 September 2016	10 to 16 September 2016 (External Practical Exam: 17 to 21 September 2016)
	3rd Years: 21 to 23 July 2016	29 to 31 August 2016	5 to 7 October 2016	19 to 31 October 2016 (External Practical Exam: 1 to 8 November 2016)
	2nd Year: 11 to 13 August 2016	21 to 23 September 2016	3 to 5 November 2016	17 to 30 November 2016 (External Practical Exam: 7 to 11 November 2016)
	1st Year: 21 to 23 September 2016	20 to 22 October 2016	5 November 2016	8 to 19 November 2016 (External Practical Exam: 1 to 5 November 2016)
Even (1 st January – 30 th June 2017)	4th Year: 30 July 2016	-	-	10 to 29 April 2017
	3rd Years: 8 to 10 December 2016	16 to 18 January 2017	1 to 3 March 2017	10 to 22 March 2017 (External Practical Exam: 23 to 30 March 2017)
	2nd Year: 9 to 11 January 2017	16 to 18 February 2017	29 to 31 March 2017	13 to 29 April 2017 (External Practical Exam: 3 to 10 April 2017)
	1st Year: 9 to 11 January 2017	16 to 18 February 2017	29 to 31 March 2017	13 to 29 April 2017 (External Practical Exam: 3 to 10 April 2017)

Sample Feedback Analysis

Student Feedback Report

<http://10.16.1.5/CUTMPKDWebClient/jsp/StudentInformation/Repor...>


School of Engineering & Technology, Paralakhemundi

Student Feedback Report

Generated On : 23-JUN-2017 At : 04:27:07 PM

Course : BTECH

Discipline : CE

Batch : 2015

Semester : 4th Semester

Section : A

Group : All Groups

Faculty : ABHINASH PAIKRAY : P20120

Subject : WATERSUPPLY & SANITARY ENGINEERING

Total no. of students who have given feedback : 29

Category Name	Criteria Name	Numbers in the columns below show the number of students who have provided a particular feedback					Criteria Score	Category Score
		Outstanding (Point : 10)	Very Good (Point : 8)	Good (Point : 6)	Average (Point : 5)	Poor (Point : 4)		
Class Management	Covers the syllabus at an even pace and completely	26	3	0	0	0	9.79	9.52
	Engages classes regularly and punctually	22	6	1	0	0	9.45	
	Takes command of the class and maintains discipline	22	5	2	0	0	9.38	
Planning and organisation	Clarifies the objectives of the course/topic	21	7	0	1	0	9.34	9.30
	Comes well prepared for the classes	21	7	1	0	0	9.38	
	Develops the course material in a logical sequence without leaving any gaps	20	8	1	0	0	9.31	
	Explains linkages with other topics	20	6	3	0	0	9.17	
Presentation and Communication	Assignments are prepared to cover all varieties of questions	18	8	3	0	0	9.03	9.24
	Concepts & principles are well explained	18	10	1	0	0	9.17	
	Develops an application bias by presenting illustrations & case studies	18	10	1	0	0	9.17	
	Keeps live students attention and interest	20	8	1	0	0	9.31	
	Lectures are in simple and easily understandable language	21	6	2	0	0	9.31	
	Presents the course material with clarity	20	8	1	0	0	9.31	
	Uses the black board in a systematic and effective manner	20	7	1	1	0	9.21	
Voice is easily audible to the entire class	22	6	1	0	0	9.45		
Students Participation	Creates in the student for qualities of self-learning	19	9	1	0	0	9.24	9.19
	Student is encouraged to raise doubts and seek clarification	17	11	1	0	0	9.10	
	Suggest material for further reading and relevant references	20	7	1	1	0	9.21	

Aggregate Feedback Score : 9.31

Alumni Feedback

The University organised an alumni meet on 14th September 2016 at Marigold Residency Hotel, Andheri East, Mumbai. 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. The meeting was presided by Prof. D.N. Rao, Vice President, CUTM. Students from all disciplines were present in this meeting and shared their views as below.

- Alumni appreciated the skill integration approach in the CBCS curriculum introduced in all programmes of University.
- Alumni noted with great sense of belongingness about the new initiatives taken by the University for establishing closer contact with the industry.
- The meeting also noted with satisfaction the establishment of Centres of Excellence in Textiles which will not only position the CUTM in garment industry, but also enable its students to get direct shop floor experience while training in the University itself.
- They were happy to see our Incubation centre for e-Rickshaws obtaining government orders to manufacture and supply. They felt that more such incubation centres should be set up in the campus. That would directly help students to innovate product and process, and access market.
- The meeting felt the need to open regional chapters across the country.
- It was also felt necessary to organise regular meetings and undertake continuous education and training for younger alumni as post-placement support.

Centurion University of Technology and Management

Report on Academic Audit (2016-17)

A review was done regarding the implementation of the Choice Based Credit System that was introduced at Centurion University in July 2015. The scope of review was B. Tech. 2015 and 2016 admitted batches.

The review was held on 17.04.17 & 18.04.17 at CUTM, Bhubaneswar campus. The review meeting for Paralakhemundi campus was held on 19.04.17 & 20.04.17. For the purpose of the review, interaction was held with students of each branch of B. Tech 2015 admitted batch (presently in 4th semester) and 2016 admitted batch (presently in 2nd semester) of both the campuses. The review was conducted by the following members.

1. Dr. Haribandhu Panda, Vice Chancellor, CUTM
2. Dr. D. Nageswar Rao, Former Vice Chancellor, CUTM
3. Dr. G. S. N. Raju, Vice Chancellor, CUTM, AP
4. Dr. Ashok Misra, Registrar, CUTM
5. Dr. B. P. Mishra, Dean SOET, Paralakhemundi campus
6. Dr. P. K. Mohanty, Dean Academics, Jatni campus
7. Dr. Anita Patra, Dean Change Management & Faculty Development

The findings are as follows.

Making a Choice

- The students were very happy with the existing CBCS system. They have understood that they can make their choice of subjects, which they will study in each semester, as per their interest. They were clear about the credits division that a student needs to cover from each Basket.
- They have been counselled & guided by the faculty mentors at the time of semester registration. They were provided with a list of courses that they were offered in a semester from different baskets.
- There was very low awareness regarding the dual degree in CBCS. Even though a few students knew about it, but they did not know the details of how to acquire it.
- Students brought to the notice that many of the courses gets dropped when the minimum numbers of registrations is not done for the same. So, they miss the opportunity at times.
- It was observed that the students were not given adequate option to choose. Choice was curtailed because of the assumed constraint of faculty and class rooms' inadequacy.
- Students did not internalize the possibility of completing the course in either fewer than 8 semesters or more than 8 semesters.
- Both faculty and students did not explore about the possibility of having a subject credited by a mix of students from different branches of engineering and different semesters/years. The cultural constraint of crediting a course with 'junior' is very strong.

Pedagogy followed

- The students generally referred to the syllabus posted in the University website. They knew that there are different modes such as Theory, Theory + Practice, Practice, Theory +Practice + Project, Practice + Project, Project, etc.
- 2nd year students have already done mini projects in a few courses.
- Students felt that it is easy to understand theory when they practice it or do a project.
- It was observed that the faculty did not have clear understanding about delivering theory in practice mode.

Learning Record

- Students of different batches and different branches were found to be at different stages with regard to maintaining the Learning records. Some had just started writing it, while some have done it earlier. A few did not know that they had to do it.
- Both teacher and students are not very clear about the purpose of maintaining learning record, the process to be followed and the contents to be included. They were mostly in compliance mode, which raises a much larger cultural issue of non-questioning environment in the university.
- Though there is already a format available, a handful had followed it for the theory courses and few others have written it in their own fashion.

Suggestions

- Faculty and students must understand that in CBCS, 'Choice' is primarily that of student. Faculty is a facilitator to implement such choice. The scope of 'Choice' must be clear.
- Faculty should help each student to make a choice-tracker as per his/her the goal/ aspiration at the commencement of the first semester itself. Since, the goal may change during the four years of study, the tracker needs to be navigated and revised every semester accordingly.
- Students need to be counselled that some courses may be delivered in a way where senior batch and junior batch students sit in the same class/ course.
- Counselling, regarding making the right choice, to be done more frequently and not only during the semester registration.
- Faculty to understand clearly the method of teaching theory in practice mode.
- Faculty need to first be clearly about the objective of the learning record and its format. The same needs to be prepared for all courses irrespective of the mode. It needs to be prepared for all courses taught whether it is engineering, basic science, management, or LSD courses. It needs to be monitored so that it is prepared as the course progresses rather than towards the end of the course.
- The format needs to be uniform for a particular course.
- Faculty Development Workshop needs to be done for the following
 - Comprehensive understanding of the process of implementing CBCS
 - Developing student-wise course tracker
 - Teaching Theory in Practice Mode
 - Objective, process and content of Learning Record
- It is advisable to depute neutral staff at the time of subject registration to minimize the influence of subject teachers.

Best Practices of the Institution

Best Practice A: Skill Integration in Curricula of Academic Programmes

1. Title of the Practice: Skill Integration in Curricula of Academic Programmes

2. Objectives of the Practice:

- To create an enabling environment for entrepreneurial ambitions among students of all academic programmes of the University
- To fill the knowledge-gap between industry and academia and
- To make the students industry ready and employable.

3. The Context: The curricula of a University in India at graduation level and beyond have been largely theoretical with contain very little practice component. The lab or practical classes are largely repetitive and ritualistic. This method of academic delivery does not encourage the students to think independently. It hardly leaves any room for the student to think “out of the box”, ask “what if...” questions and then to try and find solutions to those questions. Such an atmosphere is actually quite stifling to a creative mind and puts a lead on free and independent thoughts – a necessary quality for entrepreneurial dreams. CUTM has taken initiatives in bringing wide ranging changes in its curricula at all levels and in all academic programmes with a view to changing this approach to academic delivery.

Similarly, our placement experience and interaction with industry partners has conclusively shown that industry today wants to minimise the training period of the newly recruits and requires them to join the factory shop floor at the earliest. The graduates are expected to have acquired all knowledge and skill during their courses of study.

During our interaction with industry partners, it is realised that there lies knowledge, skill and attitude gaps between the curricula taught and the expectation of the industry. CUTM consciously attempts to bridge the gap by continuous improvement in curriculum and its delivery in association with industry.

4. The Practice: The skill integration into the curricula is achieved through the following process:

- Market studies are carried out to explore employability potential of different industries
- Through a process of brain-storming sessions with the industry experts, the knowledge, skill and attitudinal requirement of prospective employees are identified.
- Such knowledge-skill-attitude requirement is translated into specific industry domains across all disciplines of the Schools of the University.
- Concerned faculty of the School/Department develop model curriculum through a series of departmental and university level meetings and workshops.
- The draft curriculum is then presented in the Board of Studies

- The curriculum approved by the Board of Studies (BoS) is presented to Academic council for their final approval.

5. Evidence of Success: The process of creation of Industry Domains and the consequent integration of Skill Courses into curricula was conceptualised and introduced in the year 2015-16. The B. Tech. batch of 2013-17 and MBA batch of 2015-17 were the first batches to pass out under this new approach. Considering the success of the initiative, the process has been further consolidated.

We are confident that our approach to skill integration through industry domains will stand the University in good stead. We shall be able to provide good quality sustainable placement to our passing out students during the coming years through this practice.

6. Problems Encountered and Resources Required: Our project of integrating skill into the syllabus of each course of a curriculum is ambitious. The most challenging aspect of this project is availability of trained resource persons and faculty members who could successfully impart the practice and skill components successfully.

We have made tie-ups with different industry to have resource person to train our faculty and to offer skill courses. Summer Immersion Programmes for faculty members and laboratory technicians are organised for imparting the necessary training.

Best Practice B: Gram Tarang's Community Outreach

1. Title of the Practice: P.A.C.E. Life Skills Training in GTET Centres, Urban Clusters and Rural Areas

2. Objectives of the Practice

- To provide Life Skills training to women across different segments of GTET and Centurion University and its surrounding areas.
- The Personal Advancement and Career Enhancement (PACE) curriculum has been designed by the International Council for Research on Women, based in Washington D.C. with inputs by members of the Bangalore based NGO Swosti.

3. The Context

The P.A.C.E. LifeSkills Curriculum is being implemented in Gram Tarang since 2016. The GAP Foundation funds us to recruit and train trainers who can offer LifeSkills training as widely as possible to women studying within Gram Tarang and women in rural areas and peri-urban slums of Bhubaneswar and Vizag city. The aim of the training programme is to build capacity and confidence in women to help them navigate the challenges of their domestic as well as work spheres.

4. The Practice

The P.A.C.E. curriculum is composed of ten training Modules:

1. Communication
2. Problem Solving and Decision Making
3. Time and Stress Management
4. Water, Sanitation and Hygiene
5. Execution Excellence
6. General and Reproductive Health
7. Financial Literacy
8. Legal Literacy and Social Entitlements
9. How to Run a Small Business
10. Gender Roles and Safety and Security

In our training, we currently focus on the first four core modules which are taught over a 45 – 50 hour period. The learners are from three key constituencies: Skill Trainees at Gram Tarang Centres across Odisha, Punjab, Jharkhand and Assam; some women around the peri-urban areas of Bhubaneswar and Vizag and rural and tribal women of the Gajapati region around the rural Centurion campus in Paralakhemundi.

Every year the GAP Foundation gives targets of numbers of women to be trained and gives us corresponding funds. In order to meet our expanding targets, the GTET collaborates with Hamara Bachpan Trust, a community based organisation based in Bhubaneswar, who train women in slum bastis around Bhubaneswar and also with BREDS, another NGO based in Vizag.

5. Evidence of Success

Perhaps the strongest evidence of the success of the programme is that our factory partners in Tirupur and Bangalore are more than ready to welcome Gram Tarang trainees in their factories. HR departments of S.P. Apparels in Tirupur and Royale Garments based in Bangalore have shared their strong validation of the non-domain skills that Gram Tarangtrainees possess. They valued LifeSkills like the ability to communicate, to think critically and to have a modicum of financial management skills. Both are large companies and employ thousands of workers.

In our rural and slum areas, the women have reported the ability to exercise greater agency in their homes and developed the confidence to carve out a stronger role for themselves in decision making within the home.

P.A.C.E. Life Skills training fosters resilience, a sense of wellbeing and confidence that is the scaffolding to allow the women to grow in their life trajectories. In the factory setting it directly correlates to better time management and stronger retention in the job.

6. Problems Encountered and Resources Required

The major challenge of running the P.A.C.E Life Skills Training is attracting strong trainers with classroom management skills and MIS reporting skills. Our success in doing so would augment the quality of the programme.

A proposal to set up an Institute for Life Skills Trainers at Gram Tarang-Centurion is in the pipeline and funding will be sought from GAP Foundation to help us establish the Institute. Further support from other sources would also help this endeavour.

SWOC Analysis

Strengths

- I. CUTM has been silently but confidently redefining content, delivery and process of higher education taking ample care to blend appropriate skill training in the curricula of its Academic Programmes across the constituent Schools. It has been recognised by Government of Odisha as a Skill University through a comprehensive assessment by a high level committee. By 2020, CUTM will be among the few Skill Universities in the country redefining the education delivery, including:
 - a. Integrating Skills into conventional Education Curriculum of academic programmes at all levels
 - b. Several Skill Training Centres have been added: Advanced Centre of Excellence in Textiles, Alternative Energy Solutions, Schneider Renewable Energy Lab, Advanced Renewable Energy lab, Selco Incubation Lab, Transformer Repair Lab. The idea is to develop skill training in varied areas and disciplines and for varied student population.
 - c. Implementation of New Age Teaching methods while nurturing and developing its faculty. Instructors in a class room to act more as a facilitator and co-learner in the teaching learning process.
 - d. Creating and offering several industry oriented domains across all academic programmes; thus ensuring a large number of electives, and providing multiple career paths to its students.
 - e. With a view to engaging the students beyond class hours and outside the class monotonous and often stifling class room atmosphere, there has been a conscious effort. Centurion University's engagement in the evenings in the hostels, focus on libraries and facilitating evening labs as a hub for voluntary learning add to this effort. The Culture, Sports and socially responsible programs, are all part of a desire to build a learning culture in the student community.
 - f. Continuous and persistent experimentation with innovative pedagogy and effective education techniques is a vibrant culture at CUTM. Many such innovative experiments include:
 - i. Faculty as Mentors
 - ii. Accelerated Learning through Immersion Programs
 - iii. Yoga and Meditation taught to students and faculty alike.
 - iv. Project based Teaching methods in multiple disciplines
- II. State-of-the-art physical infrastructure
 - a. Class Rooms, Seminar Halls, Hostel (12 for boys and 4 for girls), Faculty and Staff quarters, Sports Facility, Canteens for students, faculty and staff, multi-option banking and ATM facilities, Multi Gymnasium and Medical (Dispensary with Ambulance services).
 - b. Transport facilities for students and faculty
 - c. Enabling technologies for teaching and learning such as LCD Projectors, Computers, Internet facility, software
 - d. State-of-the-art laboratory and workshop facilities with manufacturing capability
 - e. Well stocked library of books, journals and e journals
- III. Linkages with industry, government and civil society organizations
- IV. Senior faculty with good experience from industry and academia

- V. Practice of new-age teaching methods and adoption innovative outbound experiential learning techniques
- VI. Capability to develop students with low prior academic achievement and coming from socially disadvantaged section.
- VII. Widely acclaimed skilling programmes of Gram Tarang for rural youth, especially the poor, disadvantaged youth from tribal and backward districts of Odisha and Andhra Pradesh

Weaknesses

- I. Unable to garner remarkable industry or government sponsorship commensurate to our outstanding contribution to skill integration in curricula, skilling of rural youth in response to programmes launched by the Central and State Governments from time to time:
 - a. Our progress in project based education or student/faculty involvement in projects has not been able to attract noticeable support from either the private or the public sector
 - b. Our experiments at inclusion where some of the most socially and economically backward students share the same living and class room space with all students should have made headlines and attracted global inquisitiveness and research funds. Not much of that has happened yet.
 - c. The skills integration initiatives into all curricula should similarly be a subject of study and emulation by other educational institutions.
- II. Branding commensurate to its status
 - a. The skilling and social out-reach initiatives of Centurion has been widely appreciated and by the national and international bodies such as NSDC, NSDA, FICCI, UNGA, UKIERI, British Council, etc. Yet, we have been unable to break the barriers into the national stage in terms of admissions, student and faculty variability, and large scale Government sponsored research and development projects and mega advertisements have not given us visibility and mind space in the families of students, commensurate to our value creation.
 - b. Centurion University's incubation of Gram Tarang group of institutions are yet to be leveraged in creating large scale social and business initiatives.
 - c. Being measured against the Elitist approach to Global Rankings is against the context in which Centurion University works. The agencies carrying out global or national rankings of Universities follow the traditional view of education as a privilege for the elite. Such Rankings usually focus on resource and funds intensive attributes that showcase the practices of a traditional University.
 - d. Centurion University has focused on Inclusion, and educating *all* sections of society, more so the under-privileged. Measures and procedures to evaluate such value addition have not been developed yet. Thus Centurion University has not been able to receive the rankings its value addition deserves.
- III. Young faculty
 - a. Being a young University, Centurion is blessed with a large proportion of young faculty. The young faculty comes with a lack of experience. However, with time our faculty experience will also grow and this will become the strength for the University within a decade from now.
- IV. Resource constrained economy of the University
 - a. Lacks adequate financial resource because of its student base from the bottom of the pyramid segment

- b. Unable to attract many high quality faculty because of limited financial resources and locational disadvantages

Opportunities

- I. CUTM can play an important role of an enabler of human resource development of the region where the university is located. This region does not have many good quality higher education institutions.
- II. Located in the regions which constitute the back waters of the national economy, there is ample opportunity of making development interventions in the form of raising qualified and motivated human resource.
- III. There is an urgent need and ample 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).
- IV. The area is endowed with rich natural resources such as land, water, forest, minerals and biodiversity but is constrained by weak supply chain for agriculture, manufacturing and service sector; low level of socio-economic development. There is need for multi-disciplinary studies in different areas where CUTM can intervene and create a niche area for itself in terms of a leading educational and enabling facilitator of the area.
- V. Centurion University has the opportunity to redefine education (and make it more meaningful, more hands-on, more engaging, more skills based, with more freedom in choosing careers by opting for customized courses, and more inclusive). Centurion has been pioneering many initiatives, to make this happen, as described elsewhere in our submission.

Challenges

- I. Environmental Challenges
 - a. The southern and western Odisha where three of CUTM campuses are located are affected by social friction in the form of left-wing extremism
 - b. Remoteness of the Paralakhemundi and two other campuses (at Rayagada and Balangir) has a consequent lack of industrial facility, lack of good quality secondary institutions, hospitals, connectivity, etc.
- II. Social Challenges
- III. Under fast declining ethical value system and increasing cynicism among the public and especially the youth, it is a big challenge to remain in operation without making compromises in the value we dearly adore.
- IV. Lack of Student Aspiration and Exposure to Possibilities of Life with Dignity
 - a. Centurion University stands for "shaping lives and empowering communities". By design, our students are from under-privileged backgrounds. They are not sufficiently exposed to various career possibilities that the modern world, our country and our society offers in order to live an adulthood and family life with dignity. The challenge is to transform our students into self-confident and motivated citizens with humane values.
- V. Placement
 - a. Placement practices of students in many academic institutions involve various unfair means and unethical practices. In a market-led society promoting individualism, following a principled views and ethical practices does impact our students' access to certain companies. Educating students to follow ethical practices

while sacrificing the immediate gain for the long-term benefit is a challenge that the University undertakes.

- b.** 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.