

With reference to vide letter no. Dean(A)/1404 dated 09.10.2024 regarding conduct of Academic Audit for the AY 2023-24, a meeting of the committee for Academic Audit of the Department of Computer Science and Engineering was held on 12.11.2024 at 10:30AM in the office of HOD (CSE).

Following committee members were present in the meeting:-

1.	Dr. Birmohan Singh, Prof. & HOD (CSE)	Convenor
2.	Dr. Jagtar Singh, Assoicate Dean (PG&R)	Internal Member
3.	Dr. Manoj Kumar Sachan, Prof. (CSE)	Internal Member
4.	Dr. D.C. Saxena, Prof. (FET)	Internal Member
5.	Dr. P.K. Jain, Prof. (M&H)	Internal Member
6.	Dr. Satwinder Singh, Prof. (Computer Science & Technology). Central University of Punjab, Bathinda	External Member

A discussion was held to finalize the evaluation based on the prescribed performa and the rubrics provided. The committee has completed the assessment of Academic Audit. It has been observed that some of the rubrics needs to be modified for clarity to improve accuracy of assessment. Following are the observations of the Academic Audit Committee:-



1. Student faculty ratio needs to be improved.
2. Adequate space for faculty rooms and more faculty rooms required.
3. More computing facilities are required for PG and Ph.D. Programmes.

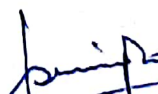
A.1 ICD Programme

1. COs and POs have been defined but have not been evaluated yet and choice based credit system is not implemented, which is proposed in ICD (restructured) from 2024.
2. ICD restructuring has been submitted but it is not implemented. 70-80% mapping of the curriculum has been done with the NSQ Framework.
3. Industrial training of the students is in place but there is a lack of industrial visits/tours.
4. Remedial classes are conducted for weak students. But this needs to be more strengthened.
5. The duration of activities related to skill-development needs to be increased. A non-credit course for alumni-student interaction may be introduced.
6. Upgradation of existing facilities for skill development needs to be strengthened.

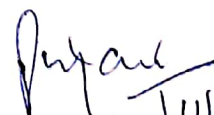
A.2 UG Programmes

1. Study material has been developed by the faculty. The types of materials increased.
2. New subjects have been introduced and the scheme has been revised. But there is a need to start new courses based the IT industry requirements like on NLP, IOT & Robotics.
3. Proposal for starting new course on Artificial Intelligence and Data Science already submitted by the department and yet to be approved by competent authority.
4. There is requirement of more industrial visits.
5. The efforts are required to being on records the supports rendered to weak students.
6. Placement activities needs to be further strengthened.


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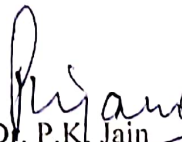

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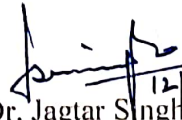
A.3 PG Programme


1. Industry person should be invited for content delivery.
2. M. Tech students should be involved in the technical societies.
3. Tour/industrial visit can be organized.
4. Collaboration with the other departments ^{should} can be improved.

A.4 Ph.D. Programme

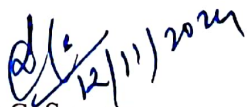
1. More emphasis should be given to enhance the research infrastructure and requirements.
2. Efforts should be made to publish more papers in reputed journals.
3. There should be more adequate sitting space for the research scholars.
4. More computational facilities related to computational extension application requirement.

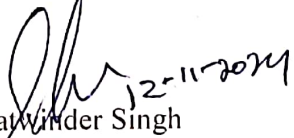

Dr. P.K. Jain
Prof. (M&H)


Dr. Jagtar Singh
Associate Dean (PG & R)


Dr. Manoj Kumar Sachan
Prof. (CSE)


Dr. Birmohan Singh
Prof. & HOD (CSE)


Dr. D.C. Saxena
Prof. (FET)


Dr. Satwinder Singh
Prof. (Computer Science & Tech.)
Central University of Punjab
Bathinda

Sant Longowal Institute of Engineering & Technology, Longowal
(Deemed University)

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

SWOT Analysis

Strength

- Well qualified and experienced faculty and staff
- Well equipped laboratory infrastructure
- Availability of smart class rooms and auditorium
- Research lab fitted with high end infrastructure (Research lab with high end workstations, ANEKA-Cloud PaaS software, Qualnet)
- Students diversity (cultural/language/academic courses)
- Modular course design with multi entry and multi exit. (ICD/UG/PG/PhD) Outgoing students from a course can be the input for next higher level course
- Attractive research fellowships (Departmental/QIP)/ADF/Visvesvaraya Ph.D. scheme.
- Availability of PDA grant for the professional development of faculty
- Allocation of funds under various Govt. schemes for department upgradation
- Access to various online journals
- Strong book bank through central/departmental library
- Encourage students for various academic and research opportunities like ACM student chapter, CSI student chapter etc
- Industry relevant updated study scheme and syllabus for ICD/UG programme
- Excellent academic environment for student grooming and career development

Weakness

- Less number of consultancy and funded research projects
- Lack of industry collaboration with respect to course designing/course execution/Project execution
- Shortage of industry visits by faculty/students
- Shortage of faculty and staff.
- Shortage of building for further expansion of the Computer Labs/Classrooms/Faculty rooms
- Location disadvantage which create difficulty in faculty retention
- Less number of quality research and patent publications.
- Interdisciplinary research is lacking.



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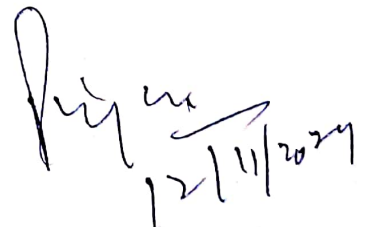
Pranav
12/11/2024

Opportunities

- Since maximum placements are happening in the IT sector, the department can further work towards placing the maximum students in good companies.
- More number of IT companies are visiting the institute so it is a better opportunity for placement of students.
- During admission in the ICD/UG programs the aspirants has a good preference for the CSE branch. It is a good opportunity for the department to attract the meritorious students by showcasing our strengths.
- With the availability of research fellowships and PDA the department can further strengthen the research prospects
- With good number of faculty members with PhD and research experience in the diversified fields, the research groups can be created to further strengthen the research/publications/patent in thrust areas.
- With the availability of Laboratory infrastructure and experienced faculty/staff, Paid/unpaid Training programs/workshops can be conducted. This will help to generate the funds also.
- Fund generation activities.

Threats

- Downfall in admission at the PG level
- More and more students are opting for study abroad at the Diploma/UG level. The department may face admission problem in future. Therefore, we should be more concerned in the competitive environment.
- Many big/small scale companies prefer to visit metro cities/well connected cities/locations. This affects the placement opportunities.
- Lack of IT sector/companies in the nearby cities/surrounding which makes difficult to connect.



SANT LONGOWAL INSTITUTE OF ENGINEERING & TECHNOLOGY
(Deemed-To-Be-University)
LONOGOWAL-148106

ACADEMIC AUDIT (2023-2024)
PROFORMA OF ASSESSMENT

1. Name of the Department : Computer Science and Engineering
2. Reviewer (Name, Designation & Address) : Dr. Satwinder Singh, Prof. (Computer Science & Tech.)
Central University of Punjab, Bathinda
3. Date of Review: 12.11.2024

NOTE:

- i. Please grade in the box provided for the following parameters in the range of 1-10 with 10 being the highest.
- ii. Leave 'blank' for 'No Comment'.
- iii. Kindly give your opinion on the strength and weakness of the Department and your suggestions for future growth.

A. ACADEMICS

A.1	ICD Programme	Score	
		Self- assessment	Expert assessment
1.	Curriculum (Structure, Course Syllabi, Flexibility), Theory/ practical (contents/ratio).	10	08
2.	Equivalence and Relevance of curriculum at national level	10	10
3.	Formal Academic Load on Students [Teaching, Laboratory/Practical, Projects(minor/major)]	10	10
4.	Evaluation Process (Continuing Evaluation, and End-Term Evaluation)	10	10
5.	Tour/Training/Industrial visits/Internship opportunities provided during the year	10	08
6.	Effectiveness of Assisted Learning, Tutorial System for ICD Students/ Seminars (Refer Course File)	10	10
7.	Faculty Mentoring/Faculty Advisor System for Students/Class of Students	10	10
8.	Practical activities, non-academic and totally related to a specific trade for skill development and <i>developing expertise in a particular group of techniques.</i>	10	10
9.	Linkage of ICD programs to outcome based vocational education (Industry linkage)	10	10
10.	Availability of workshop type lab/laboratory for providing hand on training to the students for skill development	10	10
Total Score (out of 100)		100	96

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Academic Audit Proforma of Assessment

A.2	UG Programme	Score	
		Self- assessment	Expert assessment
1.	Curriculum (Structure, Course syllabi, Flexibility, Choice based credit system)	10	10
2.	Status of study material developed by faculty for students	10	10
3.	Relevance of contents of courses taught to the students and scope of improvement (revision of syllabus, addition of new experiments)	10	10
4.	Formal academic load on students [Teaching, Laboratory/Practical, Projects(minor/major)]	10	10
5.	Modern teaching methods in practice other than the conventional methods E-Assisted Learning (i) Availability of Library Resources (ii) Multi-Media Assisted Teaching	10	10
6.	Evaluation Process (Continuing Evaluation, and End-Term Evaluation) (i) Theory and tutorial (ii) Practical (case studies)	10	08
7.	Faculty–Student Interaction (Whether any slot is fixed for the students to interact with a teacher, after classes/labs)	10	10
8.	Tour/Training/Industrial visits/Internship opportunities	10	10
9.	(a) Effectiveness of Assisted Learning in Tutorial classes/seminars for Students	05	04
	(b) Faculty Mentoring/Faculty Advisor System for Students/Class of Students	05	04
10	Placement %age/higher studies options (last three years)	08	06
Total Score (out of 100)		98	92
A.3	PG Programme (Separate for each programme)	Score	
		Self- assessment	Expert assessment
1.	Curriculum (Structure, Course Syllabi, Flexibility)	10	10
2.	Formal Academic Load on Students [Teaching, Laboratory/Practical, Projects(minor/major)]	10	10
3.	Evaluation Process (Continuing Evaluation, and End-Term Evaluation)	10	10
4.	Relevance of contents of courses taught to the students and scope of improvement	10	10
5.	Modern teaching methods in practice other than the conventional method E-Assisted Learning i. Availability of Library Resources and Major Search Engines (like Scopus, Web of Science) ii. Multi-Media Assisted Teaching	10	10

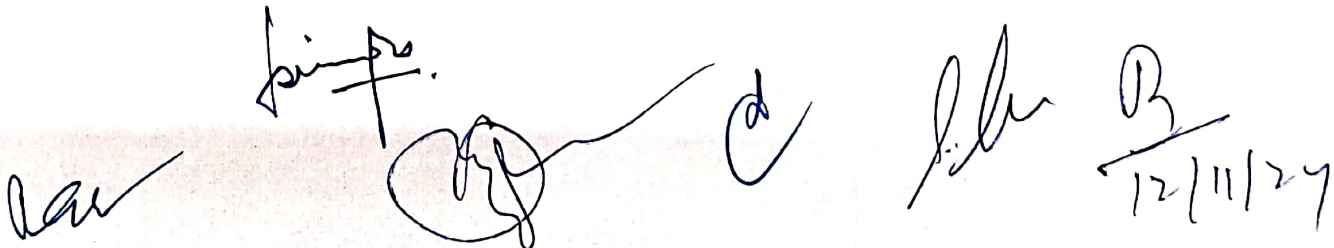
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Academic Audit Proforma of Assessment

6.	Technical Societies/ Colloquium for Students i. Departmental Society ii. Student Chapter(s) of Professional Societies	06	06
7.	Tour/Training/Industrial visits/Internship opportunities	10	06
8.	Collaboration with other departments (within institute)	06	06
9.	Faculty Mentoring/Faculty Advisor System for Students/Class of Students	10	10
10.	Monitoring and continuous evaluation of the project work assigned to the students (mechanism)	10	10
Total Score (out of 100)		92	88

A.4	Doctoral (Ph.D.) Programmes	Score	
		Self-assessment	Expert assessment
1.	Intake of Ph.D. Students	10	10
2.	Admission Process	10	10
3.	Pre-Ph.D. Courses and Evaluation Process	10	10
4.	Breadth and Depth of Knowledge of Students	08	06
5.	Seminar/ Presentations and Technical Communication	10	10
6.	Research Facilities available in the Department	10	06
7.	Average No. of Research Students/Faculty	04	04
8.	Average No. of Research Papers of Ph. D. Students (Indexed Journals)	06	06
9.	Average Duration to Complete Ph.D. (years)	04	04
10.	Participation of Research Scholars in Conferences/Workshops	06	06
Total Score (out of 100)		78	72



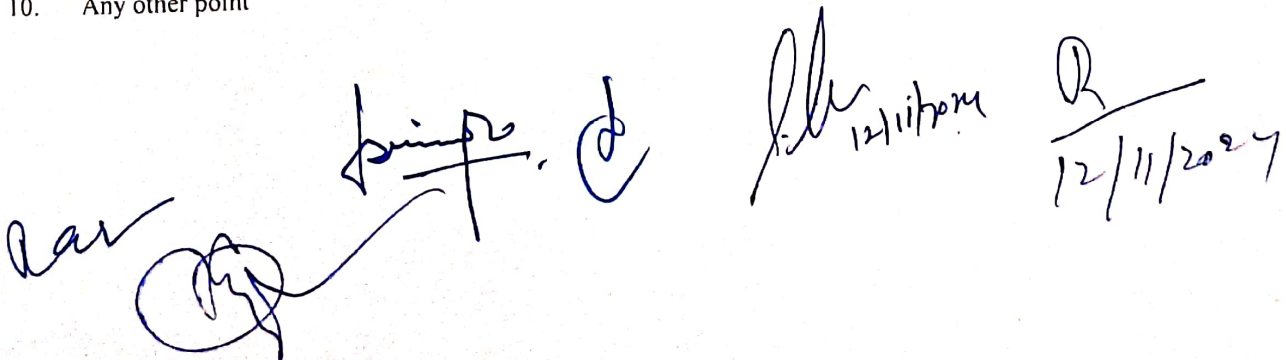
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B. RESEARCH

B.1 Research and Industrial collaboration	Score	
	Self-assessment	Expert assessment
Research Ambience in the Department	10	09
Research Awareness among Doctoral Students	10	08
Thrust areas of research in the department	10	09
Quality of Research	10	09
Collaborations with other departments (within the institute) and at National, and International levels.	10	06
Impact and Quality of Publications	10	10
Relevance of Research to Knowledge Generation and Social Relevance	10	08
Student Exposure for Attending Quality Conferences/Symposia	10	10
Inter departmental collaborations	10	10
Industry/externally funded sponsored research (Numbers and amount)	10	07
Total Score (out of 100)	100	86

General Comments on,

1. Plan of action of the department for the next five years (in view of NEP 2020)
2. Significant achievements of the department (faculty/Staff/Students)
3. Placement record of the department (Last three years)
4. Scope for training of faculty/staff for further strengthening the teaching-learning process for strengthening the curriculum with the addition of new courses having relevance at National and International levels.
5. Effective/Continuous monitoring of faculty/staff in delivery the course contents (at departmental level) for enhancing the teaching-learning process.
6. Technical Societies/ Colloquium for Students
 - (i) Departmental Society
 - (ii) Student Chapter(s) of Professional Societies
7. Scope of improvement in the presenting teaching-learning process
8. The skill and expertise of the faculty/Technical staff in the department (specific)
9. Strengthening laboratory infrastructure (adding of new equipment's and use of present facility for optimum use)
10. Any other point


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C. Departmental Infrastructure

C.1	Departmental resources	Score	
		Self-assessment	Expert assessment
1	Adequacy of Class Rooms and Multi-Media Facility	10	06
2	Availability of Laboratories	10	10
3	Availability of Conference/Seminar Room, etc	10	10
4	Availability of Seating Space for Faculty and Research Students	10	06
5	Availability of Internet Services in Research Labs and Class Rooms	10	10
6	Departmental Library and E-Resources	10	10
7	Computing Facilities and Software	10	08
8	Adequacy of Offices and Furnishing for Faculty	10	06
9	Faculty- Student Ratio	10	04
10	Support Staff (Technical/Administrative) Adequacy	10	10
Total Score (out of 100)		100	80

SWOT analysis by the department :

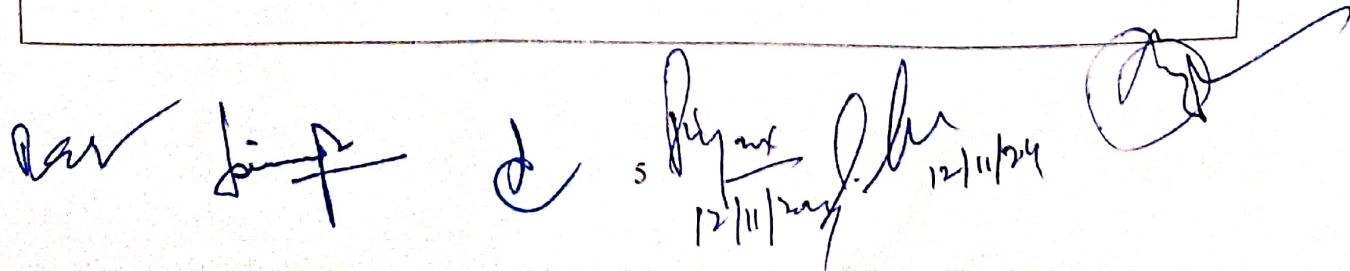
Strengths: Adequate space except faculty cabins

Weaknesses: Faculty available and computing facilities

Opportunities: PG admissions

Challenges: Remote Location

Suggestions for improvement: 1. More Computing Infrastructure required
2. SFR to be improved.


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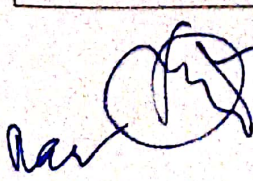
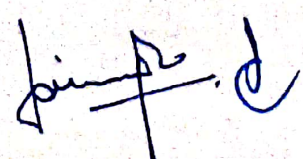
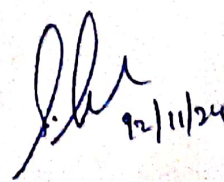
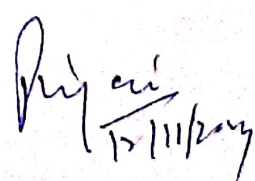
D. Outcomes

D.1	Placement/ higher studies/ Publications/ Consultancy, Ph.D. awarded etc.	Score	
		Self-assessment	Expert assessment
1	i. Placements for ICD ii. Placement of B.Tech iii. Placement of Masters Student iv. Placement of Ph. D. Students	10	10
2	Average No. of Ph. Ds Awarded per Year	10	03
3	Publications per Faculty in Indexed Journals/Year (Average of last three years)	10	10
4	Average Citations per Faculty/Year (Last-Three Years) (Web of Science/Scopus)	10	06
5	Recognitions; Awards(National/International) to Faculty/Students	10	08
6	Consultancy and Externally Funded Projects	10	07
7	No. of Ph.D. graduates who took Academics as Career (Last 5 Years)	10	10
8	Students offered for higher studies	10	10
9	No. of qualified students NET/GATE/CAT etc (State/Central Civil Services)	10	08
10	Entrepreneurship	10	00
Total Score (out of 100)		100	72

Comments & Suggestions for Improvement

Attached herewith

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(Deemed-To-Be-University)
LONOGOWAL-148106

ACADEMIC AUDIT (2023-2024)

SUMMARY SHEET

1.	Name of the Department	Computer Science and Engineering
2.	Name of Reviewer Designation & Address	From Academia
		Dr. Satwinder Singh Prof. (Computer Science & Tech.) Central University of Punjab Bathinda
3.	Date of Meeting	12.11.2024

Score Summary							
Academics (A)				Research (Max Score 100)	Departmental Infrastructure (Max Score 100)	Outcome (Max Score 100)	Total Score (700)
ICD Programme (Max Score 100)	UG Programme (Max Score 100)	PG Programme (Max Score 100) (Average of all PG programs)	Doctoral Programme (Max Score 100)				
(A.1)	(A.2)	(A.3)	(A.4)	(B)	(C)	(D)	(A+B+C+D)
96	92	88	72	86	80	72	586

Note: 1. Marks mentioned above are the average of the marks given by the experts.

2. If marks have not been allotted for some attributes by the experts, total score can be scaled to maximum marks.



Name & Signature of HOD