



Department of Computer Science and Applications, Sambalpur University
Evaluative Report for the period 2010-11 to 2014-15

1. Name of the Department : **Computer Science and Applications**
2. Year of establishment: **1988**
3. Is the Department part of a School/Faculty of the university? **Yes**
4. Names of Programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D, .D.Sc., D.Litt., etc.) : **PG, P.G. Diploma, M.Phil**
5. Interdisciplinary Programmes and departments involved: **For Basics of Computer Sciences, this Dept involved with Nine Dept./ School of the University.**
6. Courses in collaboration with other univ., industries, foreign institutions, etc. : **NIL**
7. Details of programmes discontinued, if any, with reasons: **M.Sc.(Comp.Sc.), MCA**
These courses are now run by SUIIT, an autonomous institution under Sambalpur University.
8. Examination System: **Semester System**
(Annual/ Semester/Trimester/Choice Based Credit System)
9. Participation of the department in the courses offered by other departments: **Yes**
10. Number of teaching posts sanctioned and filled (Professors/Associate Professors/Asst. Professors)

Position	Sanctioned	Filled	Actual (Including CAS & MPS)
Professor	1	0	0
Associate Professor (Reader)	1	0	1(CAS)
Asst. Professor (Lecturer)	3	2	2(One Deputed to SUIIT)

11. Faculty profile with name, qualification, designation and area of specialization, experience and research under guidance.

Name	Qualification	Designation	Specialization	No. of Years of Experience	Ph. D (Last 5 Yrs)
Dr. (Mrs.) Sarada Baboo	Ph. D	Reader	Application of IT in BPR(MIS)	23	M.Phil - 05
Dr. C.S. Panda	Ph.D	Lecturer	Image & video Processing, Machine Vision	13	RGNF – 02 M.Phil – 07 Ph.D - 03 (Continuing)

12. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors: NIL
13. Percentage of classes taken by temporary faculty (programme-wise information):
14. Programme-wise Student Teacher Ratio

PGDCA- 30:2

MCA- 30: 2

M.Phil- 10: 2

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual:

	Sanctioned	Filled
Technical	02	02
Administrative	03	02

16. Research thrust areas as recognized by funding agencies: NIL
17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise. NIL
18. Inter-institutional collaborative projects and associated grants received
- a) National collaboration: NIL
- b) International collaboration: NIL
19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE etc.; total grants received.: NIL
20. Research facility / centre with
- state recognition: NIL
 - national recognition: NIL
 - international recognition: NIL
21. Special research laboratories sponsored by / created by industry or corporate bodies: NO
22. Publications: (Refer *Annexure*)
- * Number of papers published in peer reviewed journals and Conference
International : 20 National : 04
 - * Monographs: NIL
 - * Chapters in Books: 03
 - * Edited Books : 01 ; ATCIT–2013 ,ISBNNo. 978-93-83060-0
 - * Books with ISBN with details of publishers: NIL

- * Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): NIL
 - * Citation Index – range / average: --
 - * SNIP :--
 - * SJR: --
 - * Impact Factor – range / average:--
 - * h-index: --
23. Details of patents and income generated: NIL
24. Areas of consultancy and income generated: NIL
25. Faculty selected nationally/ internationally to visit other laboratories /institution /industries in India and abroad: NIL
26. Faculty serving in
a) National committees b) International committees c) Editorial Boards d) any other (please specify) 02
27. Faculty recharging strategies: **Teachers are attending Refresher and Orientation Courses, workshops, seminars regularly.**
28. Student projects
- percentage of students who have done in-house projects including inter-departmental projects: **60% for PGDCA students**
 - percentage of students doing projects in collaboration with other universities / industry / institute: **100% for MCA students**
29. Awards / recognitions received at the national and international level by
- Faculty : NIL
 - Doctoral / post doctoral fellows: NIL
 - Students: NIL
30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of outstanding participants, if any.

Title of Seminar/ Conference/ Workshop	Source of Funding	Outstanding Participants
National level Conference on Advanced Trends in Computer Sc. & Information Technology on 11-12 March, 2013	UGC	Prof. G.K. Nayak, Director, IIIT, BBSR Prof. J.K. Sing , Jadavpur University Prof.D.P.Mohapatra, NIT , RKL
National Workshop on Simulation Using MatLab, 19- 24 February 2014.	UGC	Prof. P.K Hota, VSSUT, Burla Prof. R.P. Panda, VSSUT, Burla Prof. P.K. Modi, VSSUT, Burla Prof. U.C. Pati, NIT, RKL

31. Code of ethics for research followed by the departments:

The thesis are being checked for plagiarism and accordingly certified by the supervisor and M Phil / Ph D students.

32. Student profile Program - wise:

Name of the Course	Year	Applications received	Appeared		Pass percentage
			Male	Female	
PGDCA	2010 - 2011	17	06	03	75
	2011 - 2012	03	01	00	Not Appeared
	2012 - 2013	50	21	06	100
	2013 - 2014	28	05	08	89
	2014 - 2015	28	06	08	Result awaited
MCA	2010-2011	31	17	14	100
	2011-2012	No admission	--	--	100
	2012-2013	No admission	--	--	100
	2013-2014	No admission	--	--	
M. Phil	2013-2014	23	07	03	Result awaited
	2014-2015	21	03	04	Continuing

33. Diversity of students

Name of the Programme	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
PGDCA	85.8%	14.2%	0	0
M.PHIL.	28.57%	57.14%	14.29%	0

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise: Data not available.

35. Student progression

Student progression	Percentage against enrolled
UG to PG	--
PG to M.Phil.	03
PG to Ph.D.	01
Ph.D. to Post-Doctoral	
Employed	NIL
<ul style="list-style-type: none"> • Campus selection • Other than campus recruitment 	Data not available
Entrepreneurs	--

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	100%
from other universities within the State	0
from universities from other States	0
from universities outside the country	0

37. Number of faculty who were awarded M.Phil, Ph.D., D.Sc. and D.Litt. during the assessment period

Two (02-Ph.D)

38. Present details of infrastructural facilities with regard to

a) Library: **More than 1900 Books.**

b) Internet facilities for staff and students:

High speed leased line for Internet facility for both teachers and students.

c) Total number of class rooms : 02

d) Class rooms with ICT facility: 01

e) Students' laboratories: 01

f) Research laboratories: 01

39. List of doctoral, post-doctoral students and Research Associates

a) from the host university: NIL

b) from other universities: 02 (RGNF)

40. Number of post graduate students getting financial assistance from the university.: **41 (Forty One)**

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

YES. Since there was no M.Phil programme in Computer Science in Odisha, steps were taken for opening of one year M.Phil programme in the Department in the year 2013.

42. Does the department obtain feedback from

a. faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback? No

b. students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback? YES (feedback are being sent to P.G Council office)

c. alumni and employers on the programmes offered and how does the department utilize the feedback? No

43. List the distinguished alumni of the department (maximum 10)

Sl. NO.	NAME	ORGANIZATION
1	Dushmanta Mohanty	IBM, bengaluru
2	Ashok Sahu	Senoir DBA,WIPRO, Hyderabad
3	Sudam Sekhar Panda	Reader, Andhra University
4	Jitedra Kumar Sahu	Manager, OMC, BBSR
5	Rakesh Nayak	Reader, Kakinada
6	Sishir Rout	iGate, Senior consultant, Singapore
7	Bibhudatta Mishra	Professor, Amity University, Hyderabad
8	Sambit Panda	NIC, Delhi
9	Subrat Behera	NIC, BBSR
10	Subrat Panda	IIT, Delhi

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts:
Regular Seminar talks held on IT fields delivered by Comp. Sc. & IT Personnels.
45. List the teaching methods adopted by the faculty for different programmes.
- i)Lecture: -
 - ii) Interactive:-
 - iii) Computer aided teaching:-
46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?
- a) Interactive
 - b) Discussion and continuous evaluation.
47. Highlight the participation of students and faculty in extension activities.
- a. Attend & Organise Conference/ Seminar/ IT Training programme.
 - b. Workshop Programmes.
 - c. Welcome ceremony, Farewell ceremony and Annual Function celebration
48. Give details of “beyond syllabus scholarly activities” of the department.
- Students deliver seminars in the presence of all teachers and all students in the seminar class, in order to develop their communication skill.
49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. : No.

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

Promoting research in new emerging areas, generation of study/course material

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

Strength: Managed three programmes like MCA, M.Sc.(Comp. Sc.) and PGDCA successfully with more than 400 passed out students & placed in reputed IT companies, State & Central Govt organization & public sector companies. First M.Phil programme in Computer Science has been started from the academic session 2014 in Odisha. The department is organizing Refresher Courses/Training programme regularly.

Weakness: Less no. of faculty. Only one year P.G. Diploma programme & one year M.Phil programme. The one year PGDCA programme is not attracting students, due to a no. of private institutions offering the course. Hence, degradation in the student enrollment. Own building handed over recently. One faculty deputed to SUIIT.

Opportunities: Looking forward to become a part of multidisciplinary research project of National and International level.

Challenges: To introduce fulltime two/three year Course. Growth of research lab., Library Infrastructure and Research facility.

52. **Future plans of the department.**

The Department plans to open one Masters degree programme in Comp.Sc. , specialized & sophisticated hi-tech IT research Laboratory to start interdisciplinary research by collaborating with other reputed institutions/ IT companies.

ANNEXURE

Publication of Department of CSA (2010-15)

2010

Panda, C.S., Patnaik, S. (2010). "Better Edge map in Grayscale Image Using Gaussian Method" International Journal of Computational and Applied Mathematics Vol. 5, pp. 53-65, International ISSN: 1819-4966.

Panda, C.S., Mallick, P.K., Patnaik, S. (2010). "Object Tracking using Parallel Local Color Histogram Method" International Journal of Computational Vision and Robotics (IJCV) Vol.1, pp.363-379, International ISSN: 1752-9131.

Panda, C.S., Patnaik, S. (2010). "Multiple Variations Supported Face Recognition using Principal Component Analysis" Proceedings of the International Conference on "Challenges and Applications of Mathematics in Science and Technology" (CAMIST-2010), pp. 80-89, ISBN: 978-0230-32875-4.

Panda, C.S., Patnaik, S. (2010). "Grayscale Template Image Matching using Bounded Partial Normalized Cross Correlation" Proceedings of the International Conference on "Challenges and Applications of Mathematics in Science and Technology" (CAMIST-2010), pp. 129- 138, ISBN: 978-0230-32875-4.

Panda, C.S., Patnaik, S. (2010). "Character recognition using kohonen's linear vector quantization neural network classifier", Proceedings of the International Conference on "Challenges and Applications of Mathematics in Science and Technology" (CAMIST-2010), pp. 26-33, ISBN: 978-0230-32875-4.

Panda, C.S., Mallick, P.K., Patnaik, S. "Detecting Image forgeries using Resampling by automatic Region of Interest", Proceedings of the International Conference on Computational Vision & Robotics (ICCV-2010) Bhubaneswar during August 21-22, 2010.

Panda, C.S., Behera, Anukampa, Patnaik, S. (2010) "Fingerprint Classification and Recognition using Feature Based Image Matching" Proceedings of the Joint International Conference on "Information & Communication Technology" (IJICT-2010), pp. 19-26.

Panda, C.S., Mallick, P.K., Patnaik, S. (2010) "Object Tracking using Parallel Local Color Histogram Method" Proceedings of the International Conference on Computational Vision & Robotics (ICCV-2010), Bhubaneswar during August 21-22, 2010.

2011

Reddy, A. N., Nayak, Rakesh, Baboo, Sarada (2011). Analysis and Performance Characteristics of Cryptosystem using Image files International Journal of Computer Application (IJCA) Vol. 51, PP. 7-11, International ISSN NO: 0975-8887.

2012

Panda, Subodh, Swain, Bikash, Baboo, Sarada and Panda, C.S (2012). Artificial Intelligent in Thermal Power Plant for Losses Control” International Journal of Advanced Research (IJAR) Vol. 1, pp. 584-588, 2012-13 International ISSN NO: 2320-5407.

Panda, C.S., Patnaik, S. (2012). “Image Feature Extraction Using Gaussian Filter and Fuzzy Logic” Proceeding of the UGC sponsored National Conference on “Soft Computing and Data Mining “(NCSCDM-2012). pp. 12-19.

Panda, C.S., Patnaik, S. (2012). “3D Geometric Primitive Extraction Using Kalman Filter” Proceedings of the UGC sponsored National Conference on “Soft Computing and Data Mining (NCSCDM-2012).

2013

Panda, Subodh, Patro, Ajit Kumar, Baboo, Sarada (2013). “Adaptive Neuro-Fuzzy Controller for Thermal Power Plant Optimization” International Journal of Emerging Trends & Technology in Computer Science (IJETTCS) Volume 2, PP. 99-102, International ISSN NO: 2278-6856.

2014

Panda, C.S., Baboo, S., Swain, R.K., Khatua, C.K. (2014). Face Recognition Using Principal Component Analysis with Statistical Median and Mode for Normalization” International Journal of Engineering Research Vol.4, pp. 28-31, International ISSN: 2319- 6890) (online), 2347-5013 (Print).

Karali, Y., Panda, S. and Panda, C.S. (2014). Cyber Crime: An Analytical Study of Cyber Crime Cases at the Most Vulnerable States and Cities in India International Journal of Engineering and Management Research. Vol.-5, pp.43-48, International ISSN (Online): 2250-0758, ISSN (Print): 2394-6962.

Nayak, S.K., Karali, Y. and Panda, C.S. (2014). A Study on Brain MRI Image Segmentation Techniques International Journal of Research Studies in Computer Science and Engineering Vol.-2, pp.04-13, 2014-15 International ISSN: 2349-4840 (Print), ISSN: 2349-4859 (Online).

Karali, Y. , Panda S. and Panda, C.S. (2014).Analysis of Cyber Crime and its impact in India International Journal of Management, IT & Engineering Vol.-5, pp.119-127, International ISSN (Online): 2249-0558.

Nanda, I., Panda, C.S. (2014) “A review on partial reconfiguration and its tool & application” Proceedings of the National Seminar on “Science & Technology for Human Development”.

Das, Bishwa Ranjan, Panda, C.S., Patnaik, S., Dash, Niladri Sekhar, (2014) “Part of speech tagging in odia using support vector machine”. Proceedings of the International Conference on Intelligent Computing, Communication & Convergence (ICCC-2014).

Baboo, S., Panigrahi, Rasmita, Padhy, Neelamadhab (2014) “The Statistical Measurement of Object-Oriented Programme Using Object Oriented Metrics”. Proceeding of the 3rd

International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA 2014). pp-605.

Das, Bishwa Ranjan, Patnaik, Srikanta , Baboo, Sarada, Dash, Niladri Sekhar (2014) “A System for Recognition of Named Entities in Odia Text Corpus using Machine Learning Algorithm”. International Conference on Computational Intelligence in Data Mining (ICCIDM), 2014, pp 315-324.

Kanungo, D.P., Naik, Bighnaraj, Nayak, Janmenjoy, Baboo, Sarada, Behera, H.S. (2014) “An Improved PSO based Back Propagation Learning MLP (IPSO-BP-MLP) for classification”. International Conference on Computational Intelligence in Data Mining (ICCIDM), 2014, pp 333-344.

Panda, C.S., Baboo, S., Swain, R.K., Khatua, C.K. (2014). “Face Recognition Using Principal Component Analysis with Statistical Median and Mode for Normalization”, National Seminar in Silicon Institute of Technology, Sambalpur, 10 Jan-2015.

Snapshot of Departmental Activities



Class Room



Computer Laboratory



Department Picnic Year 2014



National Conference ATCIT 2013

