DEPARTMENT OF CHEMISTRY

LAXMINARAYAN COLLEGE JHARSUGUDA

www.lncollegejsg.org

Department of Chemistry

Greeting and welcome to Department of chemistry, Laxminarayan College, Jharsuguda. The western part of Odisha is rich in mineral and industries such as Rourkela Steel Plant, Jindal Steel plant, Bhusan Steel plant, Vedanta Alumina, OCL, Rajgangpur etc. Realizing the need of higher education in Chemistry, Laxminarayan College, Jharsuguda planned to offer Bachelor degree in Chemistry. Our department of Chemistry came in to existence in 1969. We offer an exciting environment for academic studies in chemistry. A group of highly qualified, experienced and dedicated faculties are teaching. The department is one of the most preferred department destinations for graduate students in the district.

Chemistry is truly the "central science". New breakthroughs in every field such as metallurgy, materials science, nanotechnology, genetics, biochemistry, medicine, drug discovery and the environment etc. are all driven by chemistry. So a sound knowledge of chemistry is required to fully understand most other areas of science, and this is why the study of chemistry is recommended by many other disciplines.

Vision of the Department

- Department of Chemistry, Laxminarayan College, Jharsuguda strives to improve learning culture in Chemistry in response to the need of the society and to provide opportunities to individuals for achieving their personal, professional goals and in the field of chemistry in particular.
- The Department seeks to afford the highest levels of education through continuous revision and expansion of our educational, research and outreach programs in order to produce well-trained competent, academic and professional geoscientist capable of responding to societal needs.
- To nurture and develop the students to their optimum potential and empower them to have gainful employment in the society
- To develop the department as center of excellence in all aspects of education, research and development of basic technology in chemical sciences.
- To advance the intellectual, technological, cultural, and economic condition of the state, region, and nation through the development of new knowledge in the field of chemistry.

Mission of Department

Department of Chemistry, Laxminarayan College, Jharsuguda aspires to be a model department of excellence by

- Inculcating a positive attitude in the students to be disciplined.
- Creating an atmosphere for adoption of the principles of morality and healthy practices of life.
- Creating an environment of intellectual stimulus, scientific inquiry, innovative, and creative ambience.
- Promoting learners' success with an excellent teaching learning atmosphere.
- Encouraging the qualities of leadership keeping in view the challenges of time and society.
- Bringing all stakeholders to a common platform for common good.

Thus graduates will exit from the door of the institution with sound and practical knowledge, habit of innovative, creative, skills for full higher ambition and participatory citizenship not only in the national but global scenario.

Profile

1	**Name of the Department**	**:**	**Department of Chemistry**
2	**Year of Establishment**	**:**	**1969**
3	**Sanctioned Strength of teaching post**	**:**	**06 (Six)**
4	**Actual Strength of teaching post**	**:**	**03 (Three)**

Name Of Programme/Courses Offered

Sl. No.	Programme	Duration	Students Strength sanctioned
1	U.G. (Hons)	Three years	32+32+32 = 96
2	U.G. (Chem GE)	Three years	-
3	+2 Science	Two years	128+128= 256

Inter Disciplinary Courses

Sl. No.	Programme	Course	Department involved	Students Strength
1	UG	Environmental studies(compulsory)	Science, Arts, Commerce	128+96+96=320

Faculty Profile (Recent)

Sl No	Name	Qualification	Designation	Specialization	Years of Experience
1.	Mrs. Snehalata Mishra	M.Sc. Ph.D.	Reader	Inorganic Chemistry	37
2.	Mrs Soudamini Pandey	M.SC.	Reader	Organic Chemistry	34
3.	Dr. Gitarani Dixit	M.Sc.,M.Phil., Ph.D.	Reader	Physical Chemistry	32
4.	Ms. Priyadarshini Singh	M.Sc.	Lecturer		
5.	Ms. Purnima Chaudhury	M.Sc.	Lecturer		
6.	Miss Prangya Priyadarshini Nath	B.Sc.	Demonstrator	-	10
7.	Sri. Manahar Pattnaik	B.Sc.	Demonstrator	-	03

Faculty Profile (Retired and Transfer)

Sl No	Name	Qualification	Designation	Specialization	Years of Experience
1.	Mr Purna Chandra Pradhan	M.Sc., M.Phil.	Reader	Physical chemistry	33
2.	Mrs Smita Bose	M.Sc.	Reader	Organic Chemistry	38
3.	Dr Saroj Kumar Kaunar	M.Sc., PhD.	Reader	Theoretical Chemistry	34
4.	Dr Susanta Kumar Padhan	M.Sc., M.Phil., PhD.	Lecturer	Organic Chemistry	07
5.	Dr Susmita Naik	M.Sc., Ph.D.	Lecturer	Organic Chemistry	07
6.	Dr Kailash K. Panda	M.Sc., Ph.D.	Demonstrator	Inorganic Chemistry	37

Supporting Staff Members

Sl. No.	Name	Designation	Qualification	Years of Experience
1.	Mr. Jogendra Patel	Lab. Attendant	-	10
2.	Mr. Mahendra Meher	Lab. Attendant	-	06

MR PURNA CHANDRA PRADHAN

purna.c.pradhan61@gmail.com

Mr. Purna Chandra Pradhan
M.Sc., M. Phil. (Sambalpur University)
Reader in Chemistry
(Physical Chemistry)
Date of Joining: 21.12.1987 (Initial)
Date of Joining: 02.07.2018 (Present)
Date of retirement: 31/12/2020

Official Address:

Department of Chemistry
Laxminarayan College, Jharsuguda

Residential Address:

Near Government High School
Sarbahal, Jharsuguda
Mob: 9437175914
E-mail: purna.c.pradhan61@gmail.com

Research Publications (02)

1. Effect of cationic and anionic surfactants on the reactions of sodium sulphite and Benzyl Chloride. J. Indian Chemical Society, Vol-LXII, 1985, 295-297

2. Effect of cosolvent on the critical molecular concentration of reaction of sodium dodecyl sulphate. Indian Journal of chemistry sec-A, Vol-LXI, 1987, 124-127.

Seminar Attended

1. International Seminar of Molecular and Surfactant organized by the department of chemistry, Sambalpur University, Jyoti Vihar, Burla.

2. Regional Seminar on Chemistry and Industry organized by the department of chemistry, Sambalpur University, Jyoti Vihar, Burla

Orientation & Refresher Course

1. Refresher Course in Environmental Science (2002) ASC, Sambalpur University, Jyoti Vihar.

2. Refresher Course in Environmental Science (2005) Fakir Mohan University

3. Refresher Course in Chemistry (2006) Utkal University

Mr Pradhan is a brilliant teacher in Physical chemistry. He has teaching experience of more than 31 years. He has vast experience in teaching and research of physical chemistry. He joined as lecturer in the department of chemistry, Laxminarayan College, Jharsuguda on 21.12.1987. Subsequently he served in Maharsi College, Bhubaneswar as a lecturer and reader later on. He has been transferred to Laxminarayan College, Jharsuguda as Reader in chemistry on 02.07.2018. He retired from his service on dt. 31/12/2020 from this college.

MRS SMITA BOSE

smitabose1964@gmail.com

Mrs Smita Bose

M.Sc. (Utkal University)

Reader in Chemistry
Physical Chemistry
Date of Joining (initial): 02.01.1986
Date of Joining (Present): 01.10.2010
Date of retirement: 29/02/2024

Official Address
Department of Chemistry
Laxminarayan College, Jharsuguda
Mob: 8895529994
E-mail: smitabose1964@gmail.com

Residential Address
Dengibhadi, Sundargarh

Mrs Smita Bose is an excellent teacher in the field of physical and organic chemistry. She has more than 32 years of teaching experiences to graduate and under graduate students. She has vast experience in teaching of organic and physical chemistry. She joined as lecturer in chemistry in Hindol College, Khajuakata, Dhenkanal on 02.01.1986. Subsequently she served in Kuchinda College, Sambalpur as a lecturer and finally she has been transferred to Laxminarayan College, Jharsuguda as Reader in chemistry on 01.07.2018. Currently she is serving in the department, department of chemistry, LN College, Jharsuguda. He retired from his service on dt. 29/02/2024 from this college.

Orientation & Refresher Course

1. *Refresher Course in recent trends in Chemistry (12.02.2010- 03.03.2010) Department of Chemistry, Sambalpur University, JyotiVihar.*
2. *Refresher Course in catalysis (25.07.2012- 14.08.2012) Department of Chemistry, Sambalpur University, Jyoti Vihar, Burla*

DR SAROJ KUMAR KAUNAR

sarojkuanar@rediffmail.com

Dr Saroj Kumar Kaunar,
M.Sc., Ph.D. (Sambalpur University)
Reader in Chemistry
Physico-organic Chemistry
Date of Joining: 02.05.1988
Date of Transfer: 18/11/2022

Official Address

Department of Chemistry
Laxminarayan College, Jharsuguda
Mob: 9437127129
E-mail: sarojkuanar@rediffmail.com

Residential Address

Near new post office, Sarbahal,
Jharsuguda, 768201

Orientation & Refresher Course

1. *Refresher Course (19.10.2005-08.11.2005) Department of Chemistry, Sambalpur University, Jyoti Vihar*

Research Publications:07

Significant Publications

1. *Optimization of regression model for predicting physiochemical properties of alkali ether, Indian Journal of Chemistry, 2003.*
2. *5-hydroxy 6.2-dimethoxy isoflavone 7-0-β-D-galactopyranoside from the stem bark of antirhematic plant Liriodendron Tulipifera-Linn Chemistry 18 (3126-3128) 2006.*
3. *Protein composition of the Anthelmintic plant, Lupinus Aibus Linn (seed) Asian Journal Chemistry, 18 (3135-3136) 2006.*
4. *Quantitative Structure activity relationship studies on biological oxygen demand of*
5. *Click reaction in carbohydrate chemistry: Recent Developments and future prospective, Current Organic Synthesis (2012)*

Research Project (01)

1. *Minor research project/activities relationship studies using molecular descriptors at Sambalpur University*

He joined in the Department of Chemistry on 02.05.1988. He has vast experience in teaching and research in the field of electrochemistry and physical chemistry. He has completed his doctoral research in the field of physico-organic chemistry from School of Chemistry, Sambalpur University. He has seven research publications in journals of national and international repute. He has done some postdoctoral work on Pharmacological important molecule and carbohydrate click chemistry under the supervision of Dr Vinod Kumar Tiwari, BHU. He has attended and presented seminar paper in more than 30 conferences. He has served as ***Vice-President of Orissa chemical Society*** *during the session 2013-2014. He is a Life members of Indian Science Congress and Life member of Orissa chemical Society.*

Dr Kaunar is person with many qualities. He is associated with educational as well as professional societies. He has actively worked as Coordinator in NSS and YRC in LN College, Jharsuguda. He is also a person with interest in literature. He has been awarded ***"Fakir Mohan Samman"*** *by state council of artistic research and training. He is member of District Literacy Mission, Govt of Odisha. He has received state level award on 50th Independence Day for the development of "Literacy and Science" by Information and Public Relation department.*

DR SNEHALATA MISHRA

Slmishra1965@gmail.com

Dr. Snehalata Mishra,
M.Sc., Ph.D. (North Orissa University)
Reader in Chemistry
Organic Chemistry
Date of Joining (initial): 20.08.1987
Date of Joining (Present): 08.05.2012

Official Address

Department of Chemistry
Laxminarayan College, Jharsuguda
Mob: 8637260612
E-mail: slmishra1965@gmail.com

Research Publications (04)

1. *Photo polymerization of hst-guest complexes of β-cyclodextrin/butyl acnylate in aqueous solution, kinetics& mechanism, 8 (44-50) 2016, IOSR journal of Computer Engineering (eISSN-2278-0661,pISSN 2278-8727)*
2. *Photo polymerization and methyl methacrylate in homogeneous aqueous medium by host-guest complexation with β-cyclodextrin, 3(1961-1965) 2016, ISSN 2349-2031, Valley International Journal The international Journal of Social and Humanities Invention.*
3. *Dye-sensitized photo polymerization of styrene by host-guest complexation with β-cyclodextrin, 7(2050-2255) 2017, ISSN 2250-141X, International ournal of Science and Technology.*
4. *Photopolymerization of methyl methacrylate in aqueous medium via host-guest complexation with β-cyclodextrin, 3(1-6) 2017 International Journal on Applications in Basic and Applied Sciences.*

Orientation & Refresher Course

1. *Orientation Programme (01.01.2006-06.01.2006) Fakir Mohan (Junior) College, Balasore.*

2. *Refresher Course (05.09.2008-25.09.2008) Department of Chemistry, Utkal University, Vani Vihar.*

3. *Refresher Course (25.01.2011-13.02.2011) Department of Earth Sciences, Sambalpur University, Jyoti Vihar.*

Dr Mishra joined as a lecturer in Nilgiri College, Balasore on 20.08.1987. She joined the depertment of chemistry, Laxminarayan College on 08.05.2012. She is currently working as Reader in Chemistry. Her research area of interest is Organic and physical chemistry. The title of her PhD thesis is ***"Dye sensitized polymerization of vinyl monomers: Synthesis, analysis and characterization".*** *Her PhD thesis focused on polymerization of vinyl monomers in aqueous medium by host-guest complexation with cyclodextrin. The rate of polymerization is more in host-guest complexation method. This is an ecofriendly process of polymerization which gives new path for different type ecofriendly synthesis. Currently she is working as principal from dt. 01/10/2023*

Mrs SOUDAMINI PANDEY

Soudaminu.pandey@gmail.com

Mrs Soudamini Pandey

M.Sc. (SU)

Head of the Department

Reader in Chemistry

Organic Chemistry

Date of Joining (initial): 22.01.1990

Date of Joining (Present): 29.03.2023

Official Address

Department of Chemistry

Laxminarayan College, Jharsuguda

Mob:8249423541

E-mail: soudamini.pandey@gmail.com

Total no of Publication:

Significant Publications

Orientation & Refresher Course

1. *Orientation program at G.M. College, Sambalpur (01.01.2006 to 10.01.2006)*
2. *Refresher course in Environmental Science at Sambalpur University. (24.01.2011 to 31.02.2011)*
3. *Refresher course in Environmental Science at Sambalpur University (10.10.2014 to 31.10.2014)*

Mrs Soudamini Pandey is an excellent teacher in the field of physical and organic chemistry. She has more than 34 years of teaching experiences to graduate and under graduate students. She join as Lecturer in Chemistry at Women's college, Bargarh on 22.01.1990 subsequently she serve in Barpali college, Barpali as a lecturer, Sr. Lecturer, Reader and Principal and finally she has been transferred to Laxminarayan College, Jharsuguda as a reader in Chemistry on 29.03.2023. She was syndicate member & Executive member of sports council of Sambalpur University in the year 2022. Currently she is serving the Head of the Department, Department of Chemistry and a member of Governing Body L.N. College, Jharsugudad.

DR GITARANI DIXIT

Gitaranidixit123@gmail.com

Dr Gitarani Dixit
M.Sc.,M.Phil. Ph.D. (SU)
Reader in Chemistry
Physical Chemistry
Date of Joining (Initial): 18.09.1992
Date of Joining (Present): 19.11.2022
Official Address
Department of Chemistry
Laxminarayan College, Jharsuguda
Mob: 9178373070
E-mail: gitaranidixit123@gmail.com

Total no of Publication: 03

Significant Publications

1. Apparent Molar Volume and Viscosity of N-ethylpyridinium Iodide in water. B.B.Panda, G. Dixit and B.Behera Bull.Chem.Soc. Jpn.69(1-3)1996
2. Conductivity of N-ethylpyridinium Iodide in water-Dioxan Mixtures. B.R.Pujari, G.Dixit and B.Behera Indian Journal of Chemistry, Vol.34A Oct 1995 pp(838-839)
3. Conductivity of N-methylpyridinium Iodide and its methyl substituded Derivatives in Water-Dioxan Mixtures . G. Dixit, R.K. Swain and B.Behera.J Electrochem. Soc.India 42-1. 5-8(1993)

Orientation & Refresher Course

1. UGC sponsored 21days refresher course organised by UGC-Academic Staff College, Sambalpur University from 7.11.2006 to 27.11.2006
2. UGC sponsored 21days refresher course organised by UGC-Academic Staff College, Sambalpur University from 05.07.2010 to 25.07.2010.

Dr Dixit, Reader in the Department of Chemistry is an excellent teacher and scholar with M.Phil. and Ph.D. degree. She has completed her M.Phil. degree in the year 1991 and PH.D. degree in the topic "Some Physico-Chemical Studies on Ionic Association of N-Alkylpyridinium Iodide in various Solvents and Solvent-Mixtures" awarded by Sambalpur Universitysince 2001.Her area of rescarch is Physical Chemistry.

Dr. Dixit started her career as a lecturer at Women's College, Jharsuguda w.e.f. from dt.18.09.1992 and taught there to graduate and under-graduate students. Subsequently she was transferred to Laxminarayan College, Jharsuguda, the present Institution where she is continuing in that capacity. Beside teaching she has an innate experience in Administrative work and is presenting acting as an Account Bursar looking after the day to day financial transaction of the college including the budget.

As a scholar ,she has published three articles on physical Chemistry in International and National journals. She has also attended many International and National Seminars, Webinars and Workshops on the emerging trends in Chemistry. She is also a Life member of Odisha Chemical Society and acting engaged in bringing the young talents to the force by organizing different programs. For professional enrichment, she has already attended two refresher course conducted by HRDC (sponsored by UGC), Sambalpur University .

DR SUSANTA KUMAR PADHAN

skpadhan@gmail.com

Dr Susanta Kumar Padhan
M.Sc.,M.Phil. Ph.D. (SU)
(Qualified GATE and NET)
Lecturer in Chemistry
Physico-organic Chemistry
Date of Joining: 06.10.2016
Official Address
Department of Chemistry
Laxminarayan College, Jharsuguda
Mob: 9861240592
E-mail: skpdhan@gmail.com

Total no of Publication: 11

Significant Publications

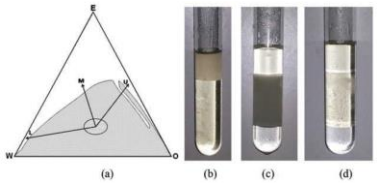
3. *Effect of Temperature on Pseudoternary system of Tween-80-Butanol-Hexane-Water, Journal of Colloid and Interface Science 355 (2011) 157–163*
4. *Clouding behaviour of surfactant systems, Advances in Colloid and Interface Science 162 (2011) 59–79.*
5. *Temperature induced emulsification and demulsification of pseudoternary mixtures of Tween80-butanol-kerosene-water system, Ind. Eng. Chem. Res. 50, 2011, 11889–11896.*
6. *Fatty acid profile and sterol composition of the marine sponge Petrosiatestudinaria, Chemistry of Natural Compounds 51, 2015, 323-325.*
7. *Temperature induced phase separation in pseudoternary mixture of Triton X-100/butanol/kerosene/water, Soft Materials, 14, 2016, 107-116.[ISSN: 1539-445X]*

Dr Padhan has a good academic record. He has qualified GATE and NET. His research interest covers organic and physico-organic chemistry. He has published 11 research publications in journals of national and international repute. He has attended and presented in five international and fifteen national symposiums.

He has worked as a Micro-analyst in School of Chemistry Sambalpur University for about one and half years. Then he was selected as lecturer under SSB. Subsequently he joined as lecturer in the Department of Chemistry, LN College, Jharsuguda on 06.10.2016.

He has expertise in the field of extraction and characterization of marine natural products. He is well experienced in isolation, characterization and identification of unknown compounds by using analytical techniques like UV-Vis, IR, NMR and Mass spectrometry.

He has completed M. Phil. Degree in the year 2005 in Organic Chemistry in the topic entitled "Effect of Counter Ion on the NMR Spectra and Monolayer of some Onium Compounds". He has completed his PhD degree in the topic entitled ***"Phase Behaviour of The Pseudoternary Mixture of Some Non-Ionic Surfactants in Solution and Their Applications"****. His PhD work is based on the phase behavior, effect of temperature, mass transport and pre-concentration through cloud point technique microemulsion.*



(Temperature Induced three phase separation of microemulsion)

DR SUSMITA NAIK

susnaik327@gmail.com

Dr Susmita Naik
M. SC., Ph.D. (IIT, Bombay)
(Qualified GATE and NET-JRF)
Lecturer in Chemistry
Organophosphorus chemistry
Date of Joining: 31.12.2016 (Initial)
Date of Joining: 28.06.2017 (Present)

Official Address

Department of Chemistry
Laxminarayan College, Jharsuguda
Mobile: 7978206703/977756673
E-mail: susnaik327@gmail.com

Residential address

At: Jharianair, Po:Panchpara, Dist: Jharsuguda
PIN: 768204, Odisha

Research Publications: 11

Significant Publications

1. *"Bisamino(diphosphonite) with dangling olefin Functionalities: synthesis, metal chemistry and catalytic utility of RhI and PdII complexes in hydroformylation and Suzuki-Miyaura reactions" Dalton Trans., **2014**, 43, 1082-1095*
2. *"dinuclearCu^{I} complexes containing pyridylappended diazadiphosphetidines and aminobis(phosphonite) ligands: Synthesis, structural studies and antiproliferative activity towards human cervical, colon carcinoma and breast cancer cells " Dalton Trans., **2014**, 43, 11339-11351.*
3. *"Short bite PNP ligand supported rare tetranuclear [Cu_4I_4] clusters: Structural and photoluminescence studies." Inorg. Chem., **2014**, 53, 3864-3873.*
4. *"Novel triphosphine ligand containing 1,3,5-triazine core [2,4,6-C_3N_3-{$C_6H_4PPh_2$-p}$_3$]: synthesis and transition metal chemistry" Inorg. Chem., **2014**, 54, 1370-1381.*
5. *A hybrid terpyridine based bis(diphenylphosphino)amine ligand, terp-C6H4N(PPh2)2: Synthesis,coordination chemistry and photoluminescence studies". Dalton Trans. **2016**, 45, 18434-18437.*

*Dr Susmita Naik has a brilliant academic career. She has qualified GATE and NET-JRF. She has completed her doctoral degree from Indian Institute of Technology, Bombay with 11 publications in very reputed journals. The title of thesis is entitled **"Bi-, Tri-, Tetra- And Pentadentate Phosphorus (Iii) Based Amino(Phosphine/Phosphonite) Ligands: Synthesis,Reactivity And Transition Metal Chemistry".** She has published nine international and two national journal. She has attended many national and international conferences.*

She started her teaching career as senior lecturer (Adhoc) from 05/07/2014 to 30/12/2016 at Govt. College Sundargarh. She joined as a lecturer at Birmaharajpur College, Birmaharajpur, Sonepur on 31.12.2016. Subsequently she has been transferred to Laxminarayan College, Jharsuguda on 28.06.2017.

DR KAILASH KUMAR PANDA

Dr Kailash K Panda
M.Sc., Ph.D. (Sambalpur University)
Demonstrator
Date of Joining: 1981
Date of retirement: 30/04/2022
M.Sc. (1985) (GangadharMeher College)
Ph.D. (1995) (Sambalpur University)

Official Address

Department of Chemistry
Laxminarayan College, Jharsuguda

Research Publications:

1. *Preparation and characterisation of barium hydrixylapatites with arsenate substitution, K.K Panda and PN Patel, J Indian Chemical Society, No 350/90 (1992)*
2. *Infrared spectral study of hydroxylapatites containing barium and arsenate, K.K Panda and PN Patel, Oriental J Chemistry 8 (65-68)1992.*
3. *pH dependence of solubilities of barium calcium hydroxylapatites, K.K Panda and PN Patel, J Institute of Chemist 428/R/3/1991(1992).*
4. *Calcium-barium hydroxylapatite containing arsenate :preparation, IR and lattice constant measurement, K.K Panda and PN Patel, J Solid State chemistry (1992).*

Achievement:

1. *Life Patron of Odisha Chemical Society.*

Dr Panda passed bachelor in science in the year 1981 from LN College, Jharsuguda. He joined Department of chemistry Laxminarayan College in 1981. He completed MSc. in 1985. His area of interest is interest in inorganic chemistry. He has completed his PhD in 1995 from Sambalpur University. The title of thesis is ***"Arsenate Substitution in the barium Calcium mixed Hydroxylapatites".****He is serving as visiting faculty and consultant to Black Diamond Engineering College, Jharsuguda. He retired from his service on dt. 30/04/2022 from this college.*

No of Students Enrolled

Year	+3 First year	+3 Second year	+3 Third year
2018-19	28	32	32
2019-20	17	25	32
2020-21	17	17	25
2021-22	23	17	17
2022-23	22	23	17
2023-24	07	22	23

Physical Facilities Available

Infrastructure

(i)	Laboratories	:	03
(ii)	Store	:	02
(iii)	Staff room	:	01
(iv)	HOD room	:	Nil
(v)	Toilet	:	Nil
(vi)	Class room	:	02

Instrumental and other facilities

- UV-Visible spectrophotometer (Chemilinene)
- pH meter (Chemiline
- Conductivity meter (Chemiline)
- Polari meter (Chemiline)
- Shaking machine (Chemiline)
- Melting point apparatus
- Hot air oven
- Digital weighing balance up to third decimal
- Physical weighing balance
- Water Bath
- Potentiometer
- Water and soil analysis kit
- Heating Mantle

Other Facilities

- Refrigerator
- Desktop with internet connection and HP laser jet Printer

High Quality Glass ware

- Burette
- Pipette
- water Condenser
- Air condenser
- Dropping funnel
- Beaker
- Conical flask
- Round bottom flask
- Measuring cylinder
- Crucible
- Porcelain basin
- Watch glass

Departmental Seminar

(i) Books: 124 **(ii) Journals : Nil**

Area & Topic

Industrial study tour to Vedanta Aluminium Limited, Bhurkamuinda,

Dist- Jharsuguda on 14.02.2022 & 23.08.2024

Name of the participant	No of Members present	Topic
		2018-19
1. GobardhanChhachhan	26	1.Electrophillic Substitution reaction in Benzene
2.Sourav Kumar Thakur	26	2.Optical isomerism
3.Prakash Chandra Bagh	26	3.Haemoglobin and oxygen transport
4.Haresh Oram	26	4.Lanthanide contraction and itsconsequences
5.Mukesh Ku Singh Deo	26	5.Diazonium salt, Preparation and synthetic application
6.Ramakanta Sahu	26	6.Enzyme catalysis 7. Thermodynamic derivation of Thermodynamic equations

7.Karan Kumar Dansana	28	7.Synthesis and therapeutic use of antipyretics: Paracetamol
8.Dolamani Pradhan	28	8.NMR Spectroscopy
9.Manahar Patnaik	28	9.ESR Spectroscopy

2019-20

1. Umesh Meher	18	1. Acid rain
2. Khirod Ch Sahu	18	2. Nucleophillic substitution reaction
3. Prasanta Bhoi	21	3. Discovery of electron
4. Lilima Bhoi	21	4. Hybridisation and shape of molecule
5. Akash Dubey	19	5. Surface Chemistry
6. Manish Ku Singh	34	6. Metalogy

2021-22

1. Shiba Pradhan	24	1. Color behind fruits and vegitables.
2. Suraj Kumar Sahu	25	2. I st Principle of green Chemistry
3. Shiba Pradhan	25	3. II nd Principle (Atom economy)
4. Ashutosh Padhan	25	4. III rd Principle (Hazardous Chemical Synthesis)
5. Suraj Sahu	16	5. Madam Mariecurie (Discovery)
6. Shiva Pradhan	16	6. Madam Mariecurie (life History)
7. Ashutosh Padhan	17	7. Polymer
8. Soumya Ranjan Pradhan	17	8. Polymer
9. Shiva Padhan	15	9. II principle of green Chemistry
10. Soumya Ranjan Pradhan	15	10. V principle of green Chemistry
11. Shiva Padhan	15	11. Harmonic Oscillator
12. Rudra Ku. Rout	16	12. Noble Prize 2022

2022-23

1. Rudra Ku. Rout	14	1. Noble prize in Chemistry 2023
2. Kiran Kumar Naik	13	2.Nucleophillic substitution reaction
3. Rani Kumari Seth	11	3. Ionic Bond
4. Belal Bhoi	12	4. Molecular orbital theory
5. Itishree Sahu	13	5. Hydrogen Bonding
6. Anima Sahu	12	6. Water Pollution
7. Ashima Khanda	11	7. Environmental Hazard due to Industrialization

2023-24

1. Suraj Kumar Sahu	22	1. Schrodinger's wave equation
2. Rudra Ku. Rout	25	2. De Broglie concept
3. Shiva Padhan	23	3. Bohr's Model
4. Ashutosh Padhan	21	4. Enzyme Catalysis
5. Rudra Ku. Rout	19	5. Huckel'saromaticity
6.Tikeswar Bir	23	6. Lewis concept of acid and base
7. Soumya Ranjan Pradhan	24	7. Conductometric titration
8. AdityaBehera	15	8. Werner's theory

Total students appeared	Number of students passed	Number of students Failed	Percentage of Pass (%)
22	10	12	45.45
26	11	15	42.30
24	13	11	54.17
15	09	06	60.00
15	04	11	26.67
19	04	15	21.07

Faculty Achievements

Sl. No.	Name	Research paper published	Books/ Book chapters written	Conference/ Seminar/ Webinar attended	Refresher/ Orientation Programme attended
1	**Mr Purna Chandra Pradhan**	**02**	**-**	**02**	**05**
2	**Mrs Smita Bose**	**-**	**-**	**02**	**02**

3	Dr Saroj Kumar Kaunar	07	-	31	03
4	Dr Snehalata Mishra	04	-	10	03
5	Mrs Soudamini Pandey	-	-		03
6	Dr. Gitarani Dixit	03	-	12	02
5	Dr Susanta Kumar Padhan	11	-	17	-
6	Dr Susmita Naik	10	-	07	-
7	Dr Kailash K Panda	04	-		-

Refresher Course/ Orientation /Training Programme

Mr. Purna Chandra Pradhan, M.Sc., M. Phil.

1. Refresher Course in Environmental Science (2002) ASC, Sambalpur University, JyotiVihar.
2. Refresher Course in Environmental science (2004) ASC, Sambalpur University, JyotiVihar.
3. Refresher Course in Environmental Science (2005) Fakir Mohan University
4. Refresher Course in Chemistry (2006) Utkal University
5. Refresher Course in recent trends in Chemistry (12.02.2010- 03.03.2010) Department of Chemistry, Sambalpur University, JyotiVihar.

Mrs Smita Bose, M.Sc.

1. Refresher Course in recent trends in Chemistry (12.02.2010- 03.03.2010) Department of Chemistry, Sambalpur University, JyotiVihar.
2. Refresher Course in catalysis (25.07.2014- 14.08.2014) Department of Chemistry, Sambalpur University, JyotiVihar.

Dr. Saroj Kumar kaunar, M.Sc., Ph.D

1. UGC sponsored Orientation Course (01.11.1993- 26.11.1993) JNU, New Delhi
2. Refresher Course in Environmental science (01.10.1994-27.10.1994) Department of Environmantal Science, Sambalpur University, JyotiVihar
3. UGC sponsored Refresher Course (19.10.2005-08.11.2005) Department of Chemistry, Sambalpur University, JyotiVihar

4. Training programme in “Organic Synthesis” at Department of Chemistry, Centre for Advance Study, Faculty of Science, BHU, Banaras May 2011 to June 2011.
5. Faculty Devlopment Programme in Enterpreneurship from University College of Engineering, Burla (Orissa) in 1992
6. Global skill Enhancement Programme conducted by Infosys, Bhubaneswar.

Dr. Snehalata Mishra, M.Sc., Ph.D.

1. Orientation Programme (01.01.2006-06.01.2006) Fakir Mohan (Junior) College, Balasore.
2. Refresher Course (05.09.2008- 25.09.2008) Department of Chemistry, Utkal University, VaniVihar.
3. Refresher Course (25.01.2011- 13.02.2011) Department of Earth Sciences, Sambalpur University, JyotiVihar.

Mrs. Soudamini Pandey, M.Sc.

1. Orientation program at G.M. College, Sambalpur (01.01.2006 to 10.01.2006)
2. Refresher course in Environmental Science at Sambalpur University. (24.01.2011 to 31.02.2011)
3. Refresher course in Environmental Science at Sambalpur University (10.10.2014 to 31.10.2014)

Dr. Gitarani Dixit, M. Sc, M. Phill, Ph.D.

1. UGC sponsored 21days refresher course organised by UGC-Academic Staff College, Sambalpur University from 7.11.2006 to 27.11.2006
2. UGC sponsored 21days refresher course organised by UGC-Academic Staff College, Sambalpur University from 05.07.2010 to 25.07.2010.

Dr. Susanta Kumar Padhan, M.Sc., M.Phil., Ph.D.

1. The STEM teacher training Workshop on Research Based pedagogical Tools, Organized by Pt. Ravishankar Shukla University, Raipur on 06-09 October 2017, sponsored by DBT, Govt of India; IISER, Pune; MHRD, New Delhi & British Council.
2. Workshop on “Quality Assurance in Higher education Institutions” organized by UGC, IQAC, LN College, 20.September 2017.

3. Fifth BRNS-AEACI Winter School on Analytical Chemistry-2012 (SAC-5) Organized by AEACI, BARC, during 03-10 December 2012 in Chemistry Department, IIT Roorkee, India.
4. Workshop on "Food Science and Technology: Past, Present & Future" Organized by P.G. Department of Home Science, Sambalpur University on 17th March 2012.

Research Project:

Dr. Saroj Kumar Kaunar, M. Sc., PhD.

1. Minor research project/activities relationship studies using molecular descriptors at Sambalpur University

Post-Doctoral Work:

Dr. Saroj Kumar Kaunar, M.Sc PhD.

1. Pharmacological important molecule and carbohydrate click chemistry under supervision of DrVinod Kumar Tiwari, BHU.

Total Number of Research Publications (38)

Research Publications: (2012-2018):20

Mr Purna Chandra Pradhan M.Sc, M. Phil (02)

1. Effect of cationic and anionic surfactants on the reactions of sodium sulphite and Benzyl Chloride. J. Indian Chemical Society, Vol-LXII, 1985, 295-297
2. Effect of cosolvent on the critical molecular concentration of reaction of sodium dodecyl sulphate. Indian Journal of chemistry sec-A, Vol-LXI, 1987, 124-127.

Dr. Saroj Kumar Kaunar M.Sc., Ph.D. (07)

1. Co-relation of critical micelle concentration on non-ionic surfactants with molecule descriptors, Indian Journal of Chemistry, 38A (113-118) 1999.
2. Co-relation of line graph parameters with physiochemical properties of Octane Isomers, Indian Journal of Chemistry, 38A (525-528) 1999.

3. Optimization of regression model for predicting physiochemical properties ogfalkaliether, Indian Journal of Chemistry, 2003.
4. 5-hydroxy 6.2-dimethoxy isoflavone 7-0-β-D-galactopyranoside from the stem bark of antirhematic plant Liriodendron Tulipifera-Linn Chemistry 18 (3126-3128) 2006.
5. Protein composition of the Anthelmintic plant, LupinusAibus Linn (seed) Asian Journal Chemistry, 18 (3135-3136) 2006.
6. Quantitative Structure activity relationship studies on biological oxygen demand of alcohols, Indian Journal of Chemistry, 45B (766-772) 2006.
7. Click recation in carbohydrate chemistry: Recent Devlopments and future prospective, Current Organic Synthesis (2012)

Dr Snehalata Mishra, M.Sc., Ph.D. (04)

1. Photo polymerization of hst-guest complexes of β-cyclodextrin/butyl acnylate in aqueous solution, kinetics& mechanism, 8 (44-50) 2016, IOSR journal of Computer Engineering (eISSN-2278-0661,pISSN 2278-8727)
2. Photo polymerization and methyl methacrylate in homogeneous aqueous medium by host-guest complexation with β-cyclodextrin, 3(1961-1965) 2016, ISSN 2349-2031, Valley International Journal The international Journal of Social and Humanities Invention.
3. Dye-sensitized photo polymerization of styrene by host-guest complexation with β-cyclodextrin, 7(2050-2255) 2017, ISSN 2250-141X, International ournal of Science and Technology.
4. Photopolymerization of methyl methacrylate in aqueous medium via host-guest complexation with β-cyclodextrin, 3(1- 2017 International Journal on Applications in Basic and Applied Sciences.

Dr. Susanta Kumar Padhan, M.Sc., M.Phil., Ph.D. (11)

1. B.K.Mishra, SandhyamayeeSahu, S. Padhan, Sabita Patel, Detection of tight ion-pair in some novel lipophathic oxidants from the monolayer at air-water interface, Indian

Journal of Chemistry, 48A, 2009, 1527-1531. [ISSN:0975-0975 (Online); 0376-4710 (Print)]

2. PravatManjari Mishra, A. Sree, Bandita Dash, MallikaPanigrahiandSusanta Kumar Padhan Isolation of a deoxylupanetriterpene carboxylic acid fromFinlaysoniaobovata (a mangrove plant),Fitoterapia 81 (2010) 977–981.[ISSN: 0367-326X]
3. Partha Mukherjee, Susanta Kumar Padhan, Sukalyan Dash, Sabita Patel, Prasanta Kumar Mohapatra , Bijay Kumar Mishra Effect of Temperature on Pseudoternary system of Tween-80-Butanol-Hexane-Water, Journal of Colloid and Interface Science 355 (2011) 157–163.[ISSN: 0021-9797]
4. Partha Mukherjee, Susanta Kumar Padhan, Sukalyan Dash, Sabita Patel and Bijay K. Mishra, Clouding behaviour of surfactant systems, Advances in Colloid and Interface Science 162 (2011) 59–79.[ISSN: 0001-8686]
5. Partha Mukherjee, Susanta Kumar Padhan, Sukalyan Dash, Sabita Patel, P.K. Mohapatra B.K. Mishra, Temperature induced emulsification and demulsification of pseudoternary mixtures of Tween80-butanol-kerosene-water system, Ind. Eng. Chem. Res. 50, 2011, 11889–11896.[ISSN: 0888-5885 (Print), ISSN: 1520-5045 (Web)]
6. Susanta Kumar Padhan, Pravat Manjari Mishra, A. Sree, Sasmita Baliarsingh, Mallika Panigrahi, Fatty acid profile and sterol composition of a marine sponge Azoricapfeifferae(Carter) Chemistry of Natural Compounds 48, 2012, 122-125.[ISSN: 0009-3130]
7. Pravat Manjari Mishra, Susanta Kumar Padhan, Ayinampudi Sree, Sasmita Baliarsingh, Mallika Panigrahi, Chemical Investigation of lipids of a marine sponge: Spirastrellavagabunda Chemistry of Natural Compounds 48, 2013, 1103-1105. [ISSN: 0009-3130]
8. Pravat Manjari Mishra, Sasmita Baliarsingh, Ayinampudi Sree, Susanta Kumar Padhan, Prangya Paramita Mohanty, Study and comparison of fatty acid profile of two gorgonians of the family Paramuriceidae Chemistry of Natural Compounds 50, 2014, 114-116. [ISSN: 0009-3130]
9. Susant Kumar Padhan, Pravat Manjari Mishra, Sasmita Baliarsingh, A. Sree, M. Panigrahi Fatty acid profile and sterol composition of the marine sponge Petrosiatestudinaria, Chemistry of Natural Compounds 51, 2015, 323-325. [ISSN: 0009-3130]

10. Pravat Manjari Mishra, Susanta Kumar Padhan, Ayinampudi Sree, Sasmita Baliarsingh, Prangya Paramita Mohanty Fatty acid profile, sterol composition of lipids and antibacterial study of marine sponge Psammaaplysillapurpurea(Carter)collected from Bay of Bengal (Orissa coast), Chemistry of Natural Compounds, 50, 2014, 520-523. [ISSN: 0009-3130]
11. Susanta Kumar Padhan, Partha Mukherjee, Ashish Tiwari, Sabita Patel & Bijay Kumar Mishra, Temperature induced phase separation in pseudoternary mixture of Triton X-100/butanol/kerosene/water, Soft Materials, 14, 2016, 107-116.[ISSN: 1539-445X]

Dr Susmita Naik, M.Sc., Ph.D. (10)

1. Short bite aminobis(phosphonite) containing olefinic functionalities, PhN{P(OC_6H_3(OMe-o)(C_3H_5-p))$_2$}$_2$: Synthesis and Transition metal complexes" M. S.Balakrishna,; SusmitaNaik,.; S. M. Mobin, Inorg. Chim. Acta, 2010, 363, 3010-3016. ISSN NO - 0020-1693
2. "Synthesis and transition metal chemistry of new bromo and alkyl substituted phosphinite ligands" Susmita.Naik,;N.Durganna,; S. M.Mobin,; J. T.Mague,; M. S. Balakrishna, Polyhedron, 2012, 38, 97-102. ISSN NO - 0277 - 5387
3. "N^1,N^1,N^4,N^4-Tetrakis(dibenzyphosphino)benzene-1,4-diamine:Synthesis, structural studies and transition metal chemistry" Susmita.Naik; J. T.Mague,; M. S.Balakrishna, Inorg. Chim. Acta, 2013, 407, 13 9-144. ISSN NO – 0020-1693
4. "Bisamino(diphosphonite) with dangling olefin Functionalities: synthesis, metal chemistry and catalytic utility of Rh(I) and Pd(II) complexes in hydroformylation and Suzuki-Miyaurareactions" Susmita Naik; Maruthai Kumaravel; J. T. Mague,; M. S. Balakrishna, Dalton Trans., 2014, 43, 1082-1095 ISSN NO – 1477-9226
5. "Dinuclear Cu^I complexes of pyridyl-diazadiphosphitidines and aminobis(phosphonite) ligands: synthesis, structural studies and antiproliferative activity towards human cervical, colon carcinoma and breast cancer cells" A. Rashid,; G. S. Ananthnag,; Susmita. Naik; J. T. Mague,; D. Panda,; M. S. Balakrishna, Dalton Trans., 2014, 43, 11339-11351.ISSN NO – 1477-9226
6. "Short bite PNP ligand supported rare tetranuclear [Cu_4I_4] clusters: Structural and photoluminescence studies." Susmia. Naik.;J. T. Mague,; M. S. Balakrishna, Inorg. Chem., 2014, 53, 3864-3873. ISSN NO – 0020-1669

7. “Novel triphosphine ligand containing 1,3,5-triazine core [2,4,6-C_3N_3-{$C_6H_4PPh_2$-p}$_3$]: synthesis and transition metal chemistry” Susmita.Naik; J. T.Mague,; M. S. Balakrishna, Inorg. Chem.,2014, 54, 1370-1381.ISSN NO – 0020-1669
8. A hybrid terpyridine based bis(diphenylphosphino)amine ligand, ter-$C_6H_4N(PPh_2)_2$; synthesis, co-ordination chemistry and photoluminescence studies. Susmita.Naik, S. Kumar, J. T. Mague and M. S. Balakrishna, Dalton Trans. 2016, 45, 18434-18437 ISSN NO – 1477-9226
9. “Allyl functionalized phosphinite and phosphonite ligands: synthesis, transition metal chemistry and orthopalladation reactions” S.Govindaraju,; G. S. Ananthnag,; Susmita.Naik; S. M. Mobin,; M. S. Balakrishna, J. Chem. Sci.2012, 124, 773-779. ISSN NO – 0974 -3626
10. Silver(I) Complexes of BisphosphinesPhN{P(OC6H4C3H5-o)2}2 (1) and [2,6-{Ph2PC(O)}2(C5H3N)] (2), V. S. Kashid, Susmita.Naik, M. S. Balakrishna, Proc. Natl. Acad. Sci., Sect. A Phys. Sci. 2016, 86, 601-604.

Dr. Kailash K Panda, M.Sc., Ph.D. (04)

1. Preparation and characterisation of barium hydrixylapatites with arsenate substitution, K.K Panda and PN Patel, J Indian Chemical Society, No 350/90 (1992)
2. Infrared spectral study of hydroxylapatites containing barium and arsenate, K.K Panda and PN Patel, Oriental J Chemistry 8 (65-68)1992.
3. pH dependence of solubilities of barium calcium hydroxylapatites, K.K Panda and PN Patel, J Institute of Chemist 428/R/3/1991(1992).
4. Calcium-barium hydroxylapatite containing arsenate:preparation, IR and lattice constant measurement, K.K Panda and PN Patel, J Solid State chemistry (1992).

Publications in Seminar and Conferences

Mr. Purna Chandra Pradhan

1. International Seminar of Molecular and Surfactant organized by the department of chemistry, Sambalpur University, JyotiviharBurla.
2. Regional Seminar on Chemistry and Industry organized by the department of chemistry, Sambalpur University, JyotiviharBurla

Dr. Saroj Kumar Kaunar

1. National seminar on perceptiveness in ecology and environmental science, 1994.

2. 8th National conference on surfactant, emulsion and biocolloid, 1997.
3. 11th annual conference of Orissa chemical society, 1997.
4. National symposium on radiation and photochemistry, 1999.
5. 13th annual conference of Orissa chemical society, 1999.
6. 4thNational symposium in Chemistry, NCL, Pune 2002.
7. 19th annual conference of Orissa chemical society, 2005.
8. National seminar on Recent Trends in Chemical Science (RETICS), Sambalpur university, 2007
9. 10th regional conference of Orissa chemical society, 2007.
10. National seminar on Recent Trends in Chemical Science (RETICS), School of Chemistry, Sambalpur university, 2008
11. Annual conference of Orissa chemical society and national conference on "Molecule", 24-26 December 2011, School of Chemistry, Sambalpur University.
12. 99th Indian Science Congress,03-07 January 2012, KIIT University , Bhubaneswar
13. National seminar on Recent Advances in Science and technology, (RAST) 27-28 February 2012 VSSUT, Burla.
14. 26th Annual conference of Orissa chemical society and national seminar on chemistry in technology 8-9 December 2012, Department of chemistry Revenshaw University, Cuttack.
15. 100th Indian Science Congress,03-07 January 2013 Calcutta University.
16. Inter State Youth Red Cross study-cum-Training camp 01-22 February 2013, Institute of Engineers Bhubaneswar.
17. State level seminar on quality enhancement of women in higher education 22-23 February 2013, Women's College Jharsuguda.
18. National seminar on Recent Trends in Chemical Science (RETICS), 16-17 March 2013, School of Chemistry, Sambalpur University.
19. National seminar and 15th regional conference of Orissa Chemical Society 14-15 September 2013.
20. UGC sponsored national seminar on Green Chemistry for sustaining Pollution free high technology civilization 12-13 November 2013, NeelashailaMahaVidyalaya, Rourkela.

21. 16thOdishaBigyan Congress 23-24th November 2014, Institute of Physics, Bhubaneswar.
22. Youth Red Cross study-cum-Training camp 25-27 February 2013, PS College, Kolabira.
23. 28th Annual conference of Orissa chemical society and national conference in material science, 13-14th December 2014, Department of Chemistry, UN (Auto) College, Autaspur , Cuttack.
24. National seminar on Recent Trends in Chemical Science (RETICS), 14-15November 2014, School of Chemistry, Sambalpur University.
25. National conference on Current trends in surface science and technology, 28 February 2014, School of Chemistry, Sambalpur University.
26. Youth Red Cross study-cum-Training camp 24-26 February 2015, Bhatlaida (Junior) College, Bhatlaida.
27. West Zone Youth Red Cross study-cum-Training camp 12-15 February 2015, PS College, Kolabira.
28. Workshop on Teaching of science 7-8 May 2015, Silicon Institute , Sambalpur
29. 17th regional conference of Orissa chemical society and national seminar, 01 November 2015, BhimBhoi College, Rairakhol.
30. Inter State Youth Red Cross study-cum-Training camp 22-26 November 2015 BJB (Auto) College, Bhubaneswar.
31. 29th annual conference of Orissa Chemical Society and national seminar on RAMSSE 24-25 December 2015, IGIT Sarang.

Dr. Snehalata Mishra, M. Sc, Ph. D

1. National seminar on Women's participation in protecting Environment(20.03.2005-21.03.2005) Bhadrak Women's College
2. National workshop on solid waste disposal management (16.12.2005-17.12.2005) Fakir Mohan (Auto) College
3. State level seminar on sustainable development(09.05.2007-10.05.2007) Nilgiri College
4. State level seminar on Ground water pollution: An Ecological crisis (26.02.2007-27.02.2007) Nilgiri College

5. Regional level seminar in Chemistry on topic need of Biodegradable insecticide (18.11.2007-19.11.2007) Swarnachada College, Midnapur, Balasore
6. Seminar on Green Chemistry for Green Environment (04.08.2007-05.08.2007)
7. Soil fertility management for sustainable agriculture (27.08.2008-28.08.2008)
8. Impact of climate change on Agriculture (15.12.2011-16.12.2011) LN Mahavidyalaya, Jamsuli
9. Green Chemistry for sustaining a pollution free high technology civilization (12.11.2013-13.11.2013) NeelasailaMahavidyalaya, Rourkela
10. Opportunities and prospects in Environmental management (09.03.2007)

Dr. Susanta Kumar Padhan M.Sc., M.Phil., Ph.D.

1. Innovative Applications of Chemistry in Pharcology& Technology, IC-IACPT-2015, (6-8) February, 2015, Solubilization of some organic substrates in nonionic microemulsion system, AshishTiwari, Susanta Kumar Padhan, Bijay Kumar Mishra, Berhampur University, Odisha.

2. Proceeding of the 5th Asian Conference on Colloid and Interface Science, ACCIS-2013, Pseudophase inversion in microemulsions of nonionic surfactant, Susanta Kumar Padhan, Partha Mukherjee, B.K Mishra, Page 262, November (20-23) 2013, University of north Bengal, Darjeeling, India
3. Proceeding of the 5th Asian Conference on Colloid and Interface Science, ACCIS-2013, Microemulsions of nonionic surfactants with some Aromatic Acids as Nonconventional cosurfactants, AshishTiwari, Susanta Kumar Padhan,Bijay Kumar Mishra, Page 331, November (20-23) 2013, University of north Bengal, Darjeeling, India
4. Proceedings of DAE-BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology, SESTEC-2010, Phase behaviour of tween-80-butanol-hexane-oil mixtures, Partha Mukherjee, SushantaPadhan, Sabita Patel, Sukalyan Dash, B.K. Mishra, held at IGCAR, Kalpakkam, March (1-4) 2010, 625-626. ISBN No. 81-88513-40-7
5. Proceedings of DAE-BRNS 3rdInternational Symposium on Materials Chemistry, ISMC-2010, Preconcentration of Cr(VI) by Cloud Point Technology , S. Pradhan, P. Mukherjee, S. Patel, S. Dash, B.K. Mishra, held at BARC, Trombay, Mumbai, December (7-11) 2010, 411. ISBN: 978-81-8372-055-2

6. National conference on Recent trends in Chemical Sciences (RETICS-2017), 22-23 March 2017, School of Chemistry, Sambalpur University.
7. AshishTiwari,Susanta K. Padhan, Bijay K. Mishra, Phase behavior of pseudoternary mixture of Triton X-100/iso-butanol/hexane/water, 30th annual conference of Orissa chemical society, 24-25 December 2016, pp-82, Department of Chemistry, KIIT, Bhubaneswar.
8. AshishTiwari,Susanta K. Padhan, Bijay K. Mishra Speciation Behaviour of organic substrate in microemulsion medium, National conference on Recent Developments on Photochemistry and Photobiology (RDPAP-2016),PP-19, page 48 School of Chemistry, Sambalpur University, Orissa, India, March (4-6) 2016.
9. Susanta K. Padhan, Partha Mukherjee, AshishTiwari,Bijay K. Mishra, Phase behavior of pseudoternary mixture of Triton X-100/iso-butanol/hexane/water, 29th annual conference of Orissa chemical society, 24-25 December 2016, pp-92, Department of Chemistry, IGIT, Sarang.
10. AshishTiwari,Susanta K. Padhan, Bijay K. Mishra, Temperature induced phase separation in pseudoternary mixtures of triton x-100/butanol/kerosene/water, 29th annual conference of Orissa chemical society, 24-25 December 2016, pp-96, Department of Chemistry, IGIT, Sarang.
11. AshishTiwari,Susanta Kumar Padhan, Bijay Kumar Mishra, Dicarbolxylic acids: unusual cosurfactant for microemulsions, P48, page 80, National conference on Advances in Chemistry and Their Biological and Industrial Revelence (ACBIR-2014), Department of Chemistry, NIT Rourkela, India, January(10-11) 2014.
12. S.K. Padhan, P. Mukherjee, B.K.Mishra, Microemulsion containing mixture of nonionic surfactants, National Seminar on “Recent Trends in Chemical Sciences” (RETCICS-2014), PP-11,page-27, School of Chemistry, Sambalpur University, Orissa, India, November (14-15) 2014.
13. Susanta K. Padhan, B.K.Mishra, Speciation of metal ion using cloud point extraction technique in microemulsion medium, National Seminar on “Recent Trends in Chemical Sciences” (RETCICS-2013), OP-26,page-37, School of Chemistry, Sambalpur University, Orissa, India, March 16-17, 2013.
14. Susanta K. Padhan, Partha Mukherjee, Sukalyan Dash, Sabita Patel, B.K.Mishra, Polydispersity in the Phase Behavior of pseudoternary Mixture of Triton X-

100/Butanol/Kerosene/Water Silver Jubilee Annual Conference of Orissa Chemical Society & National Conference on "Molecule," OP-50, page-65, School of Chemistry, Sambalpur University, Orissa, India, December-24-26, 2011.

15. SushantaPadhan, Partha Mukherjee, Sukalyan dash, Sabita Patel, Bijay. K. Mishra, Quantitative Cloud Point Composition Relationships in Microemulsions, National Seminar on "Recent Trends in Chemical Sciences" (RETCICS-2011), OP-37,page-50, School of Chemistry, Sambalpur University, Orissa, India, February 1-3, 2011.
16. Susanta Kumar Padhan, Partha Mukherjee and Bijay K Mishra, Phase Behaviour and Clouding Activities of Pseudo-Ternary Mixture of Emulsifier-Water-Oil, National Seminar on Membranes, Microemulsions and Self-Assembled Systems (MMSAS-2010) September 28-30, 2010 SMIT, Sikkim.
17. S. Padhan, P. Mukherjee, S. Dash, S. Patel, B.K. Mishra Phase behavior and clouding activities of pseudoternary mixture of Emulsifier-water-oil, National Seminar on "Recent Trends in Chemical Sciences" (RETCICS-2010), PP-30,page-62, School of Chemistry, Sambalpur University, Orissa, India, February 19-21, 2010.
18. Susanta K. Padhan, Sabita Patel, B.K .Mishra ,Condensed monolayer of Phase-transferring agent on water surface.OP-42, presented at 19th Annual Conference of Orissa chemical Society, 2005, School of Chemistry, Sambalpur University, Orissa, India.

Dr. Susmita Naik

1. Susmita Naik, C. Ganesamoorthy, M. S. Balakrishna; "Synthesis and Group 11 Metal Chemistry of Aminobis(phosphonite), [PhN{P(OC_6H_4OMe-o)$_2$}$_2$] and Bisamino{tetrakis(Phosphonite)}, [C_6H_4{N{P(OC_6H_4OMe-o)$_2$}$_2$}$_2$]" 12thInternational Symposium on Inorganic Ring Systems(IRIS-12), held at Holiday Inn Resort, Goa on August 16-21, 2009. (Poster Presentation)
2. Susmita Naik, M. S. Balakrishna; " Synthesis and Transition Metal Chemistry of Bisamino{tetrakis(Phosphonite)}, [C_6H_4{N{P($OC_6H_4(C_3H_5$-o))$_2$}$_2$}$_2$]" 12th CRSI National Symposium in Chemistry & 4th CRSI-RSC Symposium in Chemistry held at Indian Institute of Chemical Technology, Hyderabad & National Institute of Pharmaceutical Education and Research (NIPER) Hyderabad on February 4-7, 2010. (Poster Presentation)

3. Susmita Naik, M. S. Balakrishna; "Synthesis and Transition Metal Chemistry of a New Family of Aminotetra(phosphines) Ligand" In-House Symposium-2010 held in the Department of Chemistry, Indian Institute of Technology Bombay, Mumbai on February 27, 2010. (Poster Presentation)
4. Susmita Naik, M. S. Balakrishna; "Copper(I) Chemistry of "short-bite" aminobis(phosphonite) and bisaminotetrakis(phosphonite/phosphine) ligands" 3rd Indo-German Symposium on "Frontier of Chemistry" held in the Department of Chemistry, Indian Institute of Technology Bombay, Mumbai on September 27-28, 2011. (Poster Presentation)
5. Susmita Naik, M. S. Balakrishna; Triazine based Tridentate and Tetradentate based Pentadentate ligands: Synthesis, Transition metal Chemistry and Photophysical Study In-House Symposium-2012 held in the Department of Chemistry, Indian Institute of Technology Bombay, Mumbai on March 10, 2012. (Oral Presentation).
6. Natural disaster and its impact in context to Odisha. State level seminar held in Govt. College Sundargarh on July 15-16, 2016.(Participent)
7. Globalisation, its Socio-Economic and political impact on Odisha. State level seminar held in Govt. College Sundargarh on August 11-12, 2016.(Participent)

Honour & Achievements:

Dr. S. K. Kaunar

1. Vice-President of Orissa chemical Society (2013-2014).
2. Life members of Indian Science Congress
3. Life member of Orissa chemical Society
4. State level Awards on 50th Independence Day for the development of "Literacy and Science" by Information and Public Relation department.
5. Academic member of District Literacy Mission, Govt of Odisha.
6. Awarded "Fakir Mohan Samman" by state council of artistic research and training.

FUTURE PLAN OF THE DEPARTMENT/VISION 2020

1. Upgradation of research facility
2. Upgradation in the laboratory and instrumental facility
3. Improvement in the sanitary facility of the department

4. Improvement in the employment opportunity of student
5. Organization of state level and National level seminar
6. To bring about all round personality development of the students.

SWOC ANALYSIS

STRENGTH

I. Qualified, motivated and competent faculty with a blend of high experience and young and energetic dynamism.

II. Teaching through advance methods like power point and smart board teachings.

III. Supporting weaker students through extra classes.

IV. Faculty participation in Seminars, Workshops and Conferences.

V. Well-equipped seminar library with sufficient number of books.

WEAKNESS

I. Most students come from poor Socio-economic background.

II. Poor attendances of the students as most of the students come from distant places.

III. No Research facilities.

IV. Most of the students have no good academic background.

OPPORTUNITIES

I. Students passing with chemistry Honours go for higher studies in different Universities, NITs, etc.

II. A few students have also joined different Research Centres, jobs in education sector and other fields.

III. The faculties are also very active in extension programmes, in reaching out to student and the general public, through providing consultation during science seminars etc.

IV. Training of staff, both teaching and non-teaching will enhance quality.

V. If increased employment avenues the quality will be enhanced.

CHALLENGES

I. More drop outs due to early marriages of girl students.

II. Students from rural background with low socio-economic and educational status.

III. Skill development for better employability to make the students competitive.

IV. Limited scope for innovation in curriculum design as the syllabus prescribed by the university is strictly followed. Non flexibility of curriculum is always a challenge.

V. Students need to score high to compete with the students of other higher educational institution to get seat in universities.

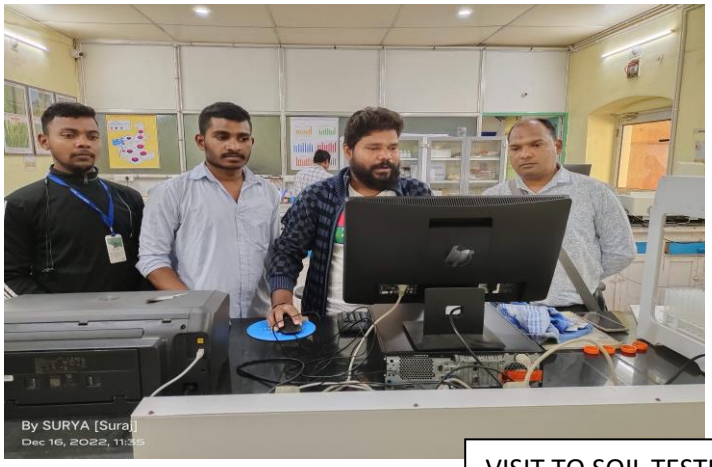
"Together we make the difference"

PHOTO GALLERY

DEPARTMENTAL SEMINAR

PARENT TEACHER STUDENTS MEETING

INDUSTRIAL VISIT TO VEDANTA ALLUMINIUM LTD



VISIT TO SOIL TESTING LABOURATORY

DEPARTMENTAL FAREWELL

TEACHERS DAY CELEBRATION

EXTRA MURAL LECTURE