[DEEPEST CONDOLENCE] (https://s3.ap-south-1.amazonaws.com/caluniv/news/files/DC-MG.pdf)

History

Year of Establishment : 1982

History of the department : The inception of the Department of Applied Chemistry was in 1920. University of Calcutta is the first among the Indian universities to pioneer studies in Applied Sciences at the post graduate level. In January 1982, Department of Applied Chemistry was trifurcated into three departments; Department of Chemical Technology is one of them. The university introduced B. Tech (8 semesters) 4 years course along with lateral entry for post B.Sc (Chemistry Hons.) 3-years (6 semesters) B. Tech. and 2-years (4 semester) M. Tech. degree courses in the Department of Chemical Technology since 2008. In 2015, Department started 4-years (8 semesters) B. Tech. course for the students passed 10+2 level and qualified JEE.

Special award/ recognition from UGC or related statutory body: Received Departmental Special Assistance Program (SAP-I)for 2018-2023

Academic
Faculty Members :

Name	Designation	Area of specialisation	Email/Phone number
Dr. (Mrs.) Sriparna Datta **[Profile] (ChemTech/Sriparna-Datta.pdf)**	Professor & **HOD**	Pharmaceuticals & Fine Chemicals Technology	sriparna_d@yahoo.com +919830695346 Ext. 275
Dr. (Ms.) Dipa Biswas **[Profile] (ChemTech/Dipa-Biswas.pdf)**	Professor	Petrochemicals & Petroleum Refinery Engineering	dipa.b@yahoo.com +919830392418 Ext. 269

Dr. Sunanda Mukhopadhyay **[Profile] (ChemTech/Sunanda-Mukhopadhyay.pdf)**	Professor	Ceramic Engineering	msunanda_cct@yahoo.co.in +919836485805 Ext. 273
Dr. Achintya Saha **[Profile] (ChemTech/Achintya-Saha.pdf)**	Professor	Pharmaceuticals & Fine Chemicals Technology	achintya_saha@yahoo.com +919433134636 Ext. 274
Dr. Prabir Maiti **[Profile] (ChemTech/PKM.pdf)**	Assistant Professor	Ceramic Engineering	prabir.maiti@gmail.com +919432889369 Ext. 279
Dr. (Mrs.) Debarati Mitra **[Profile] (ChemTech/Debarati-Mitra.pdf)**	Assistant Professor	Petrochemicals & Petroleum Refinery Engineering	debarati.che@gmail.com +919836058605 Ext. 262
Dr. Md. Farooque Abdullah **[Profile] (ChemTech/MFAbdullah.pdf)**	Assistant Professor	Pharmaceuticals & Fine Chemicals Technology	mfabdullah13@gmail.com +919874899385 Ext. 278
Dr. Debjyoti Ray **[Profile] (ChemTech/Debjoyti-Ray.pdf)**	Assistant Professor	Ceramic Engineering	debucer@rediffmail.com +916290013199 Ext. 265
Dr. Sanjib Barma **[Profile] (ChemTech/Sanjib-Barma.pdf)**	Assistant Professor	Chemical Engineering	sanjib.burma@gmail.com +917896889085 Ext. 264

Courses :

Programme	Level of study	Eligibility	Intake capacity
B. Tech. in Chemical Technology (Ceramic Engineering)	U.G	JEE/B. Sc.	10
B. Tech. in Chemical Technology (Oil Technology)	U.G	JEE Rank	10
B. Tech. in Chemical Technology (Petrochemicals & Petroleum Refinery Engineering)	U.G	JEE Rank	10
B. Tech. in Chemical Technology (Pharmaceuticals & Fine Chemical Technology)	U.G	JEE Rank	10
M. Tech. in Ceramic Engineering	P.G.	GATE	10
M. Tech. in Oil Technology	P.G.	GATE	10
M. Tech. in PharmaceuticalsTechnology	P.G.	GATE	10
M. Tech. in Petrochemicals &Petroleum Refinery Engineering	P.G.	GATE	10
Ph.D. in Ceramic Engineering	Doctoral	M. Tech. in Ceramic Engineering	8/ faculty
Ph.D. in Oil Technology	Doctoral	M. Tech. in Oil Technology	8/ faculty

Ph.D.in Petrochemicals &Petroleum Refinery Engineering	Doctoral	M. Tech. in Petrochemicals &Petroleum Refinery Engineering	8/ faculty
Ph.D.in Pharmaceuticals & Fine Chemical Technology	Doctoral	M. Tech. in Pharmaceuticals & Fine Chemical Technology	8/ faculty
Ph.D. in Applied Chemistry	Doctoral	M. Tech./ M/Sc	8/ faculty

Research

Research scholars :

Name	Name of the supervisor	Date of registration/Enrolment
Abhishek Siuli	Dr. D. Mitra	24.11.2022
Amartya Banerjee	Prof. A. Saha	20.12.2021
Anirban Chakraborty	Dr. D. Mitra	16.10.2020
Anumita Dey	Prof. S. Datta	20.12.2021
Budhadev Saha	Prof. A. Saha	24.11.2022
Gourab Chatterjee	Prof. A. Saha	16.10.2020
Ishika Saha	Prof. S. Dutta	28.06.2018
Megha Jethwa	Prof. A. Saha	04.07.2019
Mihir Acharya	Dr. S. Barma	24.11.2022
Monalisha Samanta	Dr. D. Mitra	09.07.2018
PakterNiri	Prof. A. Saha	16.10.2020
Pameli Pal	Dr. P.K. Maiti	02.01.2019
Paromita Das	Prof. S. Mukhopadhyay	14.07.2015
Pranab Kumar Sahoo	Prof. S. Datta	16.10.2020
Polopalli Subramanyam	Prof. A. Saha	20.12.2021
Rajkumar Das	Dr. D. Mitra	20.12.2021
Reshmi Chakraborty	Dr. Md. F. Abdullah	16.10.2020
Rupam Chatterjee	Dr. D. Mitra	24.11.2022
Sampa Dutta	Dr. D. Mitra	16.08.2019
Sanghita Das	Prof. A. Saha	02.01.2019
Saswati Banerjee	Prof. S. Datta	05.02.2018
Shairee Ganguly	Prof. D. Biswas	16.08.2019
Shovanlal Bhowmick	Prof. A. Saha	13.08.2018
Snehasis Mishra	Prof. S. Datta	05.02.2018
Somjyoti Basak	Dr. S. Barma	16.08.2019
Soumyadeep Ghosh	Dr. Md. F. Abdullah	02.01.2019

Srija Pal	Prof. S. Datta	24.11.2022
Sriparna Chakraborty	Prof. S. Datta	10.06.2014
Subhajit Kundu	Dr. D. Mitra	02.01.2019
Sukanta Garai	Dr. D. Ray	02.01.2019
Suparna Biswas	Dr. D. Mitra	02.02.2017
Sumit Kishor	Prof. S. Datta	20.12.2021
Sushma Rani	Prof. A. Saha	16.10.2020
Sushmita Majumder	Dr. Md. F. Abdullah	20.12.2021
Zinia Chowdhury	Dr. S. Barma	16.10.2020

Projects :

WB-DST Project, "**Production of potential Exopolysaccharides from microbes and exploration of their commercial applications**", Financial Assistance (2016) for three years of Rs. 12.8 Lakhs.

UPE Project Phase II, "**Studies on Characterization and Application of Bacterial Extracellular polymeric substances from waste**", Financial Assistance (2017) for three years of Rs. 15 Lakhs.

University Potential of Excellence (UPE) II Scheme Research Project, "**Chemometric modeling on drug design and development of selective LRRK2 inhibitors for therapeutic application of Parkinson's disease**", Financial Assistance (2017) for five years of Rs. 15 Lakhs.

UGC DRS1 Program, "**Small Molecular Drug Discovery and Delivery Design Against Infectious Diseases**",Financial Assistance (2018) for five years of Rs. 1.41 Cr.

ICAR, Govt. of India Project, "**Upgradation of Oil lab to Food testing lab**", Financial Assistance (2017) for five years of Rs. 157.80 Lakhs.

Department of Science & Technology and Biotechnology, Government of West Bengal Project, "**Debezenation of model pyrolysis gasoline using pervaporation technique**" Financial Assistance (2019) for three years of Rs. 11.30 Lakhs

Collaborations :

Academic collaboration : Academic collaborations is one regular activity and the department extend support to NITTR, NIPER, Bose Institute, Indian Statistical Institute, Academic Staff colleges of different universities, BIT (Mesra), West Bengal Pollution Control Board, Jadavpur University, University of North Carolina, St. Xavier's College, GCCET, Central Glass & Ceramic Research Institute etc.

Industrial Collaboration : FSSAI (Govt. of India), Coats of India, Mother Dairy, Edible Products Ltd. Quaker Chemicals Ltd. Proficient Food Products, Food Safety & Standard Authorities of India (Govt. of India), Indian Customs, Suman Proteins Ltd., Aloka Oils Ltd, Vinaka Fats & Oils, Budge Budge Refinery Ltd. Albert David limited, Sigcap Pharmaceuticals and several more

Thrust areas in teaching and research of the academic department :

Nanomedicine

Biotechnology

Vegetable oils

Lipid Nutrition of unsaturated fatty acids and modified fats

Enzyme Biotechnology

Cheminformatics Drug Design

Herbal Drug Technology

Glass-ceramics

Ceramic Membranes

Refractory

Castables

Sol gel Processing

Petroleum Refining

Bioremediation

Biosurfactant

Membrane Technology

Catalytic Reaction in Petroleum under high pressure (like Hydrocracking)

Characterization and applications of sol-gel materials

CO2 capture

Teaching support :

Virtual laboratories

E-learning

Research support :

Name of the equipment	Funding agency
SEM	TEQIP Phase I, CU
CHNS analyser	TEQIP Phase I, CU
FTIR	DST FIST
FTIR	UGC DRS-I
GCMS	DST FIST
HPTLC	TEQIP Phase I, CU
HPLC	UGC DRS-I
UV-VIS Spectrophotometer	TEQIP Phase I, CU
UV Spectrofluorometer	UGC DRS-I
ELIZA Reader	AICTE
Tintometer	TEQIP Phase II, CU
Gel Electrophoresis	TEQIP Phase II, CU
Petroleum Product Analyzers	TEQIP Phase II, CU
Attritor Mill	TEQIP Phase I, CU
Precision Cutter	TEQIP Phase I, CU
Spin coater	TEQIP Phase I, CU
TBP Distillation unit	TEQIP Phase I, CU
Molecular Distillation Unit	DBT
Rotary Evaporator	DST
Lyphilyser	TEQIP Phase II, CU
Fermenter	TEQIP Phase II, CU
Cold Centrifuge	UGC
Ultra Centrifuge	DST FIST
Ultra Centrifuge	UGC DRS-I
High Pressure Reactor	TEQIP Phase I, CU
Tensiometer	University
Server	DST SERB
Cheminformatics tools	DST SERB
Refrigerator (-80°C)	UGC DRS-I
Rheometer	UGC DRS-I

High pressure homogenizer	UGC DRS-I
Constant Temperature Bath	UGC DRS-I
High temperature furnace	UGC DRS-I
Modeling software, Molsoft	UGC DRS-I
Non destructive testing instrument	TEQIP Phase III, CU

Major activities :

Industry visit for 2nd and 3rd year students

Organizing remedial classes for final year students

Job opportunities through placement cell, Mr. Krishnendu Banerjee, Officer of Placement and Training (Extn. No. 579) (e.mail: placementofficer@caluniv.ac.in)

The Placement Cell along with the faculty members organize value-addition programmeslike soft-skill development and provide placement opportunities to students. It also acts asthe major interface between the industrial sector and helps in developing the industry-academia inter-relationship

Links :

Alumni Association: http://www.chemtechaa.org

Facebook: https://www.facebook.com/groups/100286150127325/

Linkedin: linkedin.com/in/chemical-technology-alumni-association-1a6268240

Additional information :

Vision :

To achieve excellence in new age technology developments, innovations in technology fundamentals, and motivate in realistic scientific contributions cutting across different technology barriers. Strive will be a national model of excellence for challenging, learner-centred academic activities that will achieve the highest level of intellectual excellence, embrace diversity, motivate confidence within a diverse collaborative research Environment.

Excel in participative learning and inspire young mind for lifelong learning with social and professional commitments.

Contribute whose members shall share a passion for research, teaching and lifelong learning with an abiding commitment to society.

Promote strong traditions for intellectual academic delivery and application of knowledge in rapidly developing changes in national and international science and technology scenario.

Mission :

The mission is to inspire young mind for continuance of cohesive contributions in science based technology applications and innovations.

Creating multifaceted opportunities for the faculty, researchers and the freshmen for excellence in professional knowledge and skills, comprehensive social developments and personal commitments build upon strong ethical and moral values.

Creating sustained developments through multilateral collaborations directed in innovative research, industry requirements and continued learning needs.

Programme Educational Objectives :

To impart high quality education to the students foradaptation of emerging technologies in the field of Ceramic Engineering, Oil technology, Petrochemicals & Petroleum Refinery Engineering and Pharmaceutical & Fine Chemical technology and excel in their professional careers.

To encourage the students to pursue higher education and contribute in research and development activities in the areas of Ceramic Engineering, Oil Technology, Petrochemicals & Petroleum Refinery Engineering and Pharmaceutical & Fine Chemical Technology.

To lay the foundation on managerial and behavioral aspects of professional Life, exhibit leadership qualities and satisfy the technological needs of the society.

Programme Outcomes :

The Programme outcome includes the following – B. Tech students should have

Ability to apply knowledge of science, mathematics, and Technology principles to practical situations in their respective professional career.

Ability to design and conduct experiments and interpret and analyze the data obtained on experimentation.

Ability to design a desired system and process within realistic economic, environmental, social, political sustainability.

Ability to function on multi-disciplinary teams.

Ability to identify, formulate and solve the technological problems of industry.

Ability to understand the professional and ethical responsibility.

Ability to communicate effectively in multicultural environment and work with Team professionalism.

Ability to acquire broad education necessary to understand the impact of Engineering & Technology solutions for global, economic and social environment.

Knowledge on contemporary issues.

An ability to use the techniques, skills and modern Technology tools necessary to succeed in the graduate competitive examinations and pursue higher studies in Chemical Technology.

Recognition of the need for engaging in life-long learning and continually update technical know-how by self learning.

Programme Curriculum :

B. Tech. (8 semester) course: Regulation (ChemTech/Regulation_8sem.pdf) || Course Structure/Syllabus (ChemTech/8sem-Structure-Syllabus.pdf)

M. Tech. (4 semester) course in

Ceramic Engineering : Regulation/Course Structure/Syllabus (ChemTech/MTech-syllCeramcis.pdf)

Oil Technology : Regulation/Course Structure/Syllabus (ChemTech/MTech-syll-Oil.pdf)

Petrochemicals & Petroleum Refinery Engineering : Regulation/Course Structure/Syllabus (ChemTech/MTech-syll-Petro.pdf)

Pharmaceuticals Technology : Regulation/Course Structure/Syllabus (ChemTech/MTech-syll-Pharma.pdf)

In Plant Training/Institutional Training :

Students have to undergo anIn plant Trainingprogram for a specified period (4–6 weeks) related to one's course/subject in an industry, like Cipla Pharmaceuticals, Mendine Pharmaceuticals, Stadmed, East India Pharmaceuticals, Dey's Medical, Zuventus, Strassenburg Pharmaceutics, Emami Pharmaceuticals, Freshnius Kavi Pharmaceuticals, Torrent Phrmaceuticals, Aventis Pharma, Indian Oil Corporation limited, Haldia Petrochemicals, Reliance Petrochemicals, Essar Oil Limited, British Oxygen, Asianol Lubricants, INOX Gases, Houghton International, Axzo Nobel, Nalco Chemicals, Berger Paints India Limited, Emami Agrotech Ltd., Adani Wilmer Ltd., Ruchi Soya Industries ltd., Gokul Refoils & Solvents Ltd., Budge Budge Refineries Ltd., Balmer Laurie Ltd., British Paints, Alfa Laval India, Britannia, Shalimar Paints India, Gemini Edible & Fats, Acalmar, H.R. Johnson India Ltd, TRL Krosaki Refractories Limited, OCL India Private Limited, Aditya Birla Insulator, EPCOS India Private Limited, Vesuvius India Ltd., Hindustan National Glass Ltd., IFGL, Somany Tiles, Nataraj Ceramics, Calderys India Limited, Saint Gobain, Carborundam Universal.

Consultancy Services :

Sl No.	Project Title	Funding Agency
1	Evaluation of nutritional facts of Veg oil samples	Suman Proteins Pvt Ltd., Kolkata
2	Evaluation of nutritional facts of Veg oil samples	Proficient Food Products, Kolkata
3	Analysis of ester samples by GC	Quaker Chemical India Ltd, Kolkata

4	Comparative study of frying characteristics of four veg oil available in market	Budge Budge Refinery Ltd, West Bengal
5	Analysis of edible oil samples	Vinayaka Oil & Fats Pvt Ltd., Howrah
6	Testing of bleach ability of three solid waste samples	Eastern Resources, Kolkata
7	Analyses of Vanaspati samples	i2i Management Consultancy Services Pvt Ltd
8	Analyses of sesame & linseed oils	B N Exports Pvt Ltd, Kolkata
9	Surveillance of Edible oils available in Kolkata Market	FSSAI, Govt of India
10	Comparative study of quality of mustard oil available in Kolkata Market	Emami Agrotech Ltd
11	Analysis of edible oil samples	JVL Oil Refinary, Jl No-149, HPL Link Road , Haldia
12	Analysis of Mustard oil	M/s Krishna Enterprise, 3/109, Bhawanipur, Haldia

Apart from these a regular CUIIPP activity on 'Analysis of imported vegetable oils' is carrying out with FSSAI, Govt. of India & Indian Custom from July 2009.

Contact

Campus : Rashbehary Siksha Prangan (Rajabazar Science College Campus)

Address for communication : The Head, Department of Chemical Technology, University of Calcutta, 92 Acharya Prafulla Chandra Road, Kolkata-700009

Phone : +91-33-2350 1014 / 1397 / 1857 / 6387 / 6396 / 8386, ext. 260/261 **Email :** hdctcu@gmail.com

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