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Website: www.surtech.edu.in; Email-info@dsec.ac.in

### Report on 5 Days Offline Hands on Workshop

Title: "Bioinformatics and Molecular Docking".

**Dates:** 4th – 8th August 2025

**Time:** 10:00 AM – 4:30 PM (Daily)

Venue: Conference Hall (317) and Computer Labs (310, 313), Dr. Sudhir Chandra Sur Institute of

Technology & Sports Complex (SurTech), Dum Dum, Kolkata.

**Organized by:** Department of Basic Science & Humanities, Dr. Sudhir Chandra Sur Institute of Technology and Sports Complex (An Autonomous Institution), JIS Group in collaboration with Subhami Biopharma (OPC) Pvt. Ltd., Kolkata.

Mode: Offline

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### **Introduction:**

We are delighted to announce that the Department of Basic Science & Humanities, Dr. Sudhir Chandra Sur Institute of Technology & Sports Complex (An Autonomous Institution under the JIS Group, Dum Dum), in collaboration with Subhami Biopharma (OPC) Pvt. Ltd., Kolkata, is jointly organizing a 5-Day Offline Hands-on Workshop on "Bioinformatics & Molecular Docking", scheduled to be held from 4th to 8th August 2025.

This workshop is designed to offer a **comprehensive introduction and practical training** in bioinformatics tools and molecular docking techniques, both of which play a vital role in **drug discovery** and **computational biology**. The event will feature **renowned scientists**, **researchers**, **and industry professionals**, who will share their expertise, insights, and real-world experiences.

In today's research landscape, Bioinformatics and Molecular Docking have become indispensable for modern biological and pharmaceutical studies, providing innovative solutions to complex scientific challenges. Through **expert-led sessions and hands-on exercises**, this workshop will enable participants to master bioinformatics databases, computational tools, and molecular docking methods. By the end of the program, attendees will have gained both **in-depth theoretical knowledge** and **practical skills** to enhance their academic research and professional careers.

### **List of Eminent Speakers:**

1. **Prof.(Dr.)Atanu Kumar Raha**,IFS(Retd),Ex-Principal Chief Conservator of Forest,WB,Director and Emeritus Professor,Techno India University

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- 2. **Prof.(Dr.) Swapan Kumar Dutta**, Former Vice-Chancellor, Visva-Bharati University, Deputy Director General (crop Science), Indian Council of Agricultural Research
- 3. **Prof. (Dr.) Pallab Kanti Halder**, Professor, Department of Pharmaceutical technology and Director of School of Natural Product Studies, Jadavpur University
- 4. **Dr.Ranjana Pal**, Asst Professor, Department of Life Sciences, Presidency University.
- 5. Dr. Mousumi Saha, Entrepreneurship Coordinator, IKN Foundation, IMI Kolkata
- 6. **Dr. B.Bindu**, CEO, Atal Incubation Centre, NIPER Guwahati Foundation, Guwahati, Assam.
- 7. **Dr. Biswajit D**as , Asst. Professor in Physics, BSH Dept., SurTech
- 8. **Dr.Debabrata Ghosh Dastidar**, Associate Professor, Guru Nanak Institute of Pharmaceutical Science and Technology

### **Objectives:**

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- 1. To introduce participants to bioinformatics concepts and molecular docking principles.
- 2. To provide **hands-on training** in computational tools used for protein, ligand, and drug design studies.
- 3. To develop skills in retrieving, analyzing, and interpreting biological data from global databases.
- 4. To train participants in **in-silico experiment design** and molecular dynamics simulations.
- 5. To enable participants to present computational results in dissertations, research papers, and peer-reviewed journals.

### **Learning Outcomes of the workshop:**

- 1. Use bioinformatics databases for sequence retrieval and analysis.
- 2. Perform **BLAST** analysis, sequence translation, and protein structure prediction.
- 3. Conduct **multiple sequence alignments** and construct phylogenetic trees.
- 4. Retrieve and prepare protein and ligand structures for docking.
- 5. Execute molecular docking experiments and analyze docking results.
- 6. Apply molecular dynamics simulations to study protein–ligand interactions.
- 7. Represent computational results effectively in academic and professional research.

### **Key Highlights**

- Expert sessions by **renowned scientists** and **industry professionals**.
- Hands-on training in:
  - Bioinformatics tools and databases
  - Sequence retrieval and BLAST analysis
  - o Protein structure prediction and homology modelling
  - o Multiple sequence alignment
  - o Phylogenetic tree construction



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- o Protein and ligand preparation for docking
- Molecular docking techniques

Molecular dynamics simulation and data interpretation

- Designing in-silico experiments for research.
- Guidance on research publication and thesis writing.
- o Interactive Q&A sessions and collaborative group activities.
- o Certificate of participation for all attendees.
- Networking opportunities with researchers and peers.

### **About Participant**

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The workshop witnessed the participation of 46 individuals, with the majority hailing from West Bengal and a few from Odisha. The attendees represented a wide spectrum of designations, including Assistant Professors, Associate Professors, UG and PG students, PhD scholars, and research fellows, coming from private, public, and government institutions. This rich diversity of backgrounds and expertise fostered a dynamic, engaging, and intellectually stimulating environment throughout the event.

### **Participant Feedback**

The workshop received highly positive feedback from participants, who praised the quality of the sessions, the relevance of the topics, and the valuable insights shared by industry experts with hands-on experience. E-certificates were awarded to participants who successfully completed the program, acknowledging their dedication to professional growth and continuous learning.

### Acknowledgement

The organizers extend their heartfelt gratitude to Dr. Sudhir Chandra Sur Institute of Technology & Sports Complex (SurTech), JIS Group, and Subhami Biopharma (OPC) Pvt. Ltd. for their collaborative efforts in making this workshop a reality. We sincerely thank all the invited speakers for their invaluable contributions and for generously sharing their expertise with our participants. Special appreciation is due to the speakers, trainers, and technical team whose dedication ensured the success of the event. Our gratitude also goes to the participants from across India for their enthusiastic engagement and active involvement, which played a vital role in making the workshop a resounding success.

We gratefully acknowledge the support of institutions such as **Techno India University**, **GNIPST**, **M.R.**College of Pharmaceutical Sciences and Research, Teivenidevi Bhalotia College, Vedanta College,
Kolkata, Silicon University, Bhubaneswar, Presidency University, The Neotia University,
Ramakrishna Mission Vivekananda Centenary College, and Oriental Institute of Science and
Technology for encouraging and motivating their students to register and participate in the workshop.
Finally, we acknowledge the unwavering support of the faculty members of the Department of Basic

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Science & Humanities, Prof. (Dr.) Saradindu Panda, Principal, DSCSITSC, and Chief Patron Sardar Taranjit Singh, Managing Director, JIS Group, for their constant encouragement and guidance.

**Conclusion:** This 5-day hands-on workshop will serve as a platform for skill development, academic enrichment, and professional networking in the fields of **Bioinformatics** and **Molecular Docking**. The fusion of expert knowledge with practical training will empower participants to apply computational approaches in their research and career pursuits. We look forward to an engaging and fruitful learning experience for all

### **Glimpses of the Event:**

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Some photos of 5 days Workshop during 4-8 August 2025 jointly organized by BSH dept & Subhami Biopharma Pvt. Ltd.



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Hands-on session effectiveness					
Interaction and engagement	9				
Overall satisfaction	0				
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NANYA PAL	8637500318	Teivenidevi Bhalotia College Raniganj	UG Student	Ananya Pal	Anonya Pal	Ananya Pal	Amanya Pal	Amanya Pal
Ankita Bose	6291544653	Techno India University	UG Student	Aukila Bosa.	Aukita Bose	Aukita Bose	Auhiter Bose	Aukitu Box
Anusuya Banerjee	6291747290	Techno India University	UG Student	Amunya Banerijee	Anusujo Banensee	Morning Jes	Hummy Jec	Zumpung.
Anwesa Dutta	6291889407	M.R. College Of Pharmaceutical Sciences and Research	UG Student	Anussa Dusta	Anweda Dutta	Anwesa Datta	Anwers Dutta	Annosa Dut
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### 5-DAY WORKSHOP ON BIOINFORMATICS AND MOLECULAR DOCKING

Organized By

Subhami Biopharma(OPC)PVT.LTD.and

Department of Basic Sciences and Humanities,

Dr.Sudhir Chandra Sur Institute of Technology and Sports Complex, Dumdum

### **Schedule of 5-Day workshop**

Date	Name of the activity	Venue	Time
04/08/2025	Tilak Ceremony	Conference	10am-11am
(Day 1)		Hall	
	Welcome of the Guests of Honour and Eminent Speakers	Conference Hall	10am-11am
	Lighting of Lamp	Conference Hall	10am-11am
	National Anthem	Conference Hall	10am-11am
	Welcome address by Professor.(Dr.)Saradindu Panda,Principal of	Conference	10am-11am
	Dr. Sudhir Chandra Sur Institute of Technology	Hall	



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Inaugural Speech by Dr.Subhalakshmi Ghosh, Founder and Director Subhami Biopharma (OPC) Pvt. Ltd and	Conference	10am-1
Dr.Dipankar Das,HOD,Department of Basic Sciences and Humanities,Dr.Sudhir Chandra Sur Institute of	Hall	
Technologyand Sports Complex.		
Felicitation to the Guests of Honour and Eminent Speakers	Conference	10am-1
(Brief address by all the eminent guests)	Hall	
Vote of Thanks by Dr.Biswajit Das, Asst Professor of Physics, Department of Basic Sciences and	Conference	10am-1
Humanities, Dr. Sudhir Chandra Sur Institute of Technologyand Sports Complex	Hall	
Welcome Tea		11:15a
		11:30ai
Plenary Lectures by Prof.(Dr.)Atanu Kumar Raha,IFS(Retd),Ex-Principal Chief Conservator of	Conference	11:30aı
Forest, WB, Director and Emeritus Professor, Techno India University - & - Prof. (Dr.) Swapan Kumar Dutta, Former Vice-Chancellor, Visva-Bharati University, Deputy Director General (crop Science), Indian Council of Agricultural Research	Hall	12:30 г
Lectures by Prof.Pallab Kanti Halder,Professor,Department of Pharmaceutical technology and Director of School	Conference	12:30p
of Natural Product Studies, Jadavpur University and Dr. Ranjana Pal, Asst Professor, Department of Life Sciences, Presidency University.	Hall	1:30pm
Practical session by Mr. Ankit Saha ,Research Assistant,Subhami Biopharma(OPC) Pvt.Ltd and Ms.Indrakshi	Computer	1:30pm



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	Mondal, Research Assistant, Subhami Biopharma (OPC) Pvt.Ltd	Lab	2:30pm
	Working Lunch	College Canteen	2:30pm- 3:00pm
05/08/2025	Welcome Tea		9:30am- 10:00am
(Day 2)	Online Lectures by Dr. Mousumi Saha, EntrepreneurshipCoordinator,IKN Foundation,IMI Kolkata and Dr. B.Bindu,CEO, Atal Incubation Centre,NIPER Guwahati Foundation,Guwahati,Assam.	Conference Hall	10:00am- 11:00am
	Practical Session by Mr. Ankit Saha and Ms.Indrakshi Mandal.	Computer Lab	11:00am- 2:30pm
	Working Lunch	College Canteen	2:30pm- 3:00pm
06/08/2025 (Day3)	Welcome Tea		9:30am- 10:00am
	Lectures By Dr. Biswajit Das Faculty of Physics, Sur Tech and Dr.Debabrata GhoshDastidar, Associate Professor, Guru Nanak Institute of Pharmaceutical Science and Technology.	Conference Hall	10:00am- 11:00am
	Practical Session by Dr.Debabrata GhoshDastidar	Computer Lab	11:30am- 2:30pm
	Working Lunch	College Canteen	2:30pm- 3:00pm



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07/08/2025	Welcome Tea		9:30am- 10:00am
(Day 4)	Practical Session by Mr.Ankit Saha and Ms.Indrakshi Mandal.	Computer Lab	10:00am- 1:00pm
	Individual Doubt Clearing	Conference Hall	1:30pm- 2:00pm
	Working Lunch	College Canteen	2:00pm
08/08/2025 (Day5)	Feedback Session	Conference Hall	10:00am- 11:00am
	Valedictory Session; Certificate and Prize Distribution		11:30pm- 1:30pm