

CURRICULUM VITAE

- 1. Name** Dr. Anupam Ghosh
- 2. Present Designation** Associate Professor
Department of Computer Science and Engineering,
NBA Coordinator, NSEC
Former HOD, Dept. of CSE,
Netaji Subhash Engineering College, Garia, Kolkata-700152
- 3. Address:** Subudhipur Middle Road (Near Krishna Cinema),
P. O.: Baruipur, 24 Parganas (South),
Kolkata-700144, West Bengal, India.
- E-mail:** anupam.ghosh@rediffmail.com
Telephone: +91-9831837936 (M)
- 4. Sex:** Male
- 5. Teaching Experience:** 15 years
- 6. Research Area:** Data Science, Soft Computing, Machine Learning, Big data Analytics, Bioinformatics
- 7. No. of Publications:** 34 International Publications
(Including 25 SCI/SCIE/ESCI/SCOPUS Indexed publications)
- 8. Professional Activity: Senior Member of IEEE**
Advisor of NSEC student branch chapters of the societies
Computer Society, Computational Intelligence, Society on
Social implications of Technology.

9. Academic Qualifications:

Qualification	Board/University	Year
Ph. D. (Engineering) Title: "Soft Computing Methodologies for Identification of Some Possible Genes Mediating the Development of a Disease: Analysis of Microarray Gene Expression Profiles"	Jadavpur University Supervisors: Dr. Rajat Kumar De, Professor, Machine Intelligence Unit, Indian Statistical Institute, Kolkata and Dr. Bibhas Chandra Dhara, Associate Professor, Department of Information Technology, Jadavpur University, Kolkata	2013 (Submission of thesis: 26.12.2012) (Reg: 16.03.2009)
M. Tech. (Computer Science and Engineering)	University of Calcutta	2004

M. Sc. (Computer and Information Science)	University of Calcutta	2002
B. Sc. (Honours) Computer Science	Surenranath College, University of Calcutta	2000
Higher Secondary (Class XII)	West Bengal Council of Higher Secondary Examination	1997
Madhyamik (Class X)	West Bengal Board of Secondary Education	1995

10. Working Experience:

From	To	Position held	Organization/Institute	Department
1 st January, 2015	Till Date	Associate Professor (Current Basic Pay: Rs.50,720/- (in PB-4: Rs. 37,400/-- 67,000/-) with AGP Rs. 9000/-)	NetajiSubhash Engineering College	Computer Science and Engineering
1 st September, 2011	31 st December, 2014	Assistant Professor (in PB-3: Rs. 15,600/-- 39,100/-) with AGP Rs. 8000/-)	NetajiSubhash Engineering College	Computer Science and Engineering
18 th October, 2007	31 st August, 2011	Assistant Professor (in PB-3: Rs. 15,600/-- 39,100/-) with AGP Rs. 7000/-)	NetajiSubhash Engineering College	Computer Science and Engineering
1 st August, 2004	17 th October, 2007	Lecturer (Scale: Rs. 8000-275-13500 (5 th pay structure))	NetajiSubhash Engineering College	Computer Science and Engineering
2012	Till date	Guest Faculty	University of Calcutta	M. Tech. (Computer Science and Engineering)
2009	Till Date	Guest Faculty	University of Calcutta	M. Tech. (Information Technology)
2009	Till Date	Guest Faculty	University of Calcutta	M. C. A.
2013	2014	Guest Faculty	JadavpurUniversity	B. E. (Information Technology)
2014	Till Date	Guest Faculty	University of Calcutta	M.Sc. (Computer Sc.)
2014	Till Date	Guest Faculty	University of Calcutta	B.TECH (Computer Sc. &Engg.)
2017	Till Date	Guest Faculty	CSIR, Govt. of India	Ph.D Pharmacoinformatics

11. Research Activities:

- a) Working in a Collaborative research with Indian Institute of Technology, Kharagpur, 2014.
- b) Post-PhD research work with Indian Statistical Institute, Kolkata from 2013.
- c) Supervising Mr. Sougata Sheet for his Ph. D. work (registered) under the Rajib Gandhi National Fellowship program in the field of “Machine Learning in Bioinformatics”.
- d) Enrolled as a Ph.D supervisor in Information Technology Program in University of Calcutta

12. Publication List:

- **International Journal papers**

1. AnupamGhosh and Rajat K. De, “Fuzzy correlated association mining: Selecting altered associations among the genes, and some possible marker genes mediating certain cancers”, *Applied Soft Computing*, vol. 38, pp. 587-605, 2016.(Impact Factor=3.22)
2. AnupamGhosh and Rajat K. De, “Identification of certain cancer mediating genes using Gaussian Fuzzy Cluster Validity Index (GFI)”, *Journal of Biosciences*, vol. 40, pp. 741-754, 2015.(Impact Factor=2.06)
3. AnupamGhosh, Bibhas Chandra Dhara, and Rajat K. De, “Selection of genes mediating certain cancers, using neuro-fuzzy approach”, *Neurocomputing*, vol. 133, pp. 122-140, 2014. (Impact Factor=2.29)
4. AnupamGhosh and Rajat K. De, “Development of a fuzzy entropy based method for detecting altered gene-gene interactions in carcinogenic state”, *Journal of Intelligent & Fuzzy Systems*, vol. 26, pp. 2731–2746, 2014. (Impact Factor=1.81)
5. AnupamGhosh, Bibhas Chandra Dhara, and Rajat K. De, “Comparative analysis of cluster validity indices in identifying some possible genes mediating certain cancers”, *Molecular Informatics*, vol. 32, pp. 347-354, 2013. (Impact Factor=2.33)
6. Rajat K. De and AnupamGhosh, “Interval based fuzzy systems for identification of important genes from microarray gene expression data: Application to carcinogenic development”, *Journal of Biomedical Informatics*, vol. 42, pp. 1022-1028, 2009. (Impact Factor=3.44)
7. Rajat K. De and AnupamGhosh, “Linguistic recognition system for identification of some possible genes mediating the development of lung adenocarcinoma”, *Information Fusion*, vol. 10, pp. 260-269, 2008. (Impact Factor=3.68)
8. SujaySaha, DibyenduBikash Seal, AnupamGhosh, KashiNathDey, "A Novel Gene Ranking Method Using Wilcoxon Rank Sum Test and Genetic Algorithm", *International Journal of Bioinformatics Research and Applications*, vol. 12, pp. 263-278, 2016.

9. SujaySaha, AnupamGhosh, DibyenduBikash Seal and KashiNathDey, "An Improved Fuzzy Based Missing Value Estimation In DNA Microarray Validated By GeneRanking", *Advances in Fuzzy Systems*, 2016 [<http://dx.doi.org/10.1155/2016/6134736>](Impact Factor=3.02)
10. SujaySaha, Anupam Ghosh, Saikat Bandopadhyay, Kashi Nath Dey "Missing Value Imputation In DNA Microarray Gene Expression Data: A Comparative Study Of An Improved Collaborative Filtering Method With Decision Tree Based Approach", *International Journal of Computational Science and Engineering*, 2017 (Accepted)
11. SWARUP KR GHOSH, ANUPAM GHOSH, AMLAN CHAKRABARTI, "VEA: VESSEL EXTRACTION ALGORITHM BY ACTIVE CONTOUR MODEL AND A NOVEL WAVELET ANALYZER FOR DIABETIC RETINOPATHY DETECTION" *International Journal of Image and Graphics*, 2017 (Accepted).
12. Sougata Sheet, AnupamGhosh and SudhinduBikashMandal, "Identification of influential biomarkers for human leukemia - An Artificial Neural Network approach"- *International Journal of Soft Computing & Artificial Intelligence*, Vol: 4, Issue: 1, pp: 27-31, doi: IJSCAI-IRAJ-DOI-4618
13. Amit Paul, AnupamGhosh, and Jaya Sil, "Dimension reduction of gene expression data using redundancy removal algorithm-data compression approach", *International Journal of Bioinformatics*, 1, pp. 19-30, 2008.
14. PrithaKundu, Tania Chakraborty, OyndrilaMajumder, KritikaKumari, AnupamGhosh "QLEGAND - GA BASED HYBRID MACHINE LEARNING ALGORITHM FOR IDENTIFYING THE CANCER MEDIATING GENE SET, *International Journal of Engineering, Technology, Science and Research*, VOL 4, ISSUE 1, PP:183-191, 2017
15. SubirHazra, Samir Kumar Sett, AnupamGhosh, AmlanChakraborty, "Identifying Cancer Mediating Biomarkers using Partition based Indexing Algorithm(PIA) – A Study on Lung Adenocarcinoma", *International Journal of Innovations & Advancement in Computer Science*, Vol 6, Issue 1, pp: 118-124, 2017
16. Rebeka Mukherjee, SeemantiGhosh, ApekshaPriya, ShikhaKumari , AnupamGhosh "Selection of Top k Biomarkers for Human Lung Adenocarcinoma using "FUGENE"- A Hybrid Machine Learning Approach", *International Journal of Computer & Mathematical Sciences*, Volume 6, Issue 5, Pp:179-185, May, 2017, ISSN: 2347 – 8527
17. Nimisha Jain, Kumar Rahul , IpshitaKhamaru, Anish Kumar Jha, AnupamGhosh "Hand Written Digit Recognition using Convolutional Neural Network (CNN)", *International Journal of Innovations & Advancement in Computer Science*, Volume 6, Issue 5, Pp:260-266, May, 2017, ISSN: 2347 – 8616

18. Jit Gupta, IndranilPradhan, AnupamGhosh, “Classification of Gene Expression Data using Gaussian Restricted Boltzmann Machine (GRBM) – An Application on Human Lung Adenocarcinoma data”, *International Journal on Recent and Innovation Trends in Computing and Communication*, Volume 5, Issue 6, Pp:56-61, June, 2017, ISSN: 2321 – 8169
19. Sheet S, Ghosh A, Mandal SB. Selection of Gene Mediating Human Leukemia, using Deep Learning Approach. *Open J. Oncol. Hematol.* 2017;2(1): pp: 001-009.

- **International Conference papers**

1. AnupamGhosh and Rajat K. De, “Gaussian Fuzzy Index (GFI) for cluster validation: Identification of high quality biologically enriched clusters of genes and selection of some possible genes mediating lung cancer” *Proceedings of the 5th International Conference on Pattern Recognition and Machine Intelligence (PReMI 2013)*, LNCS 8251, pp. 680-687, ISI, Kolkata, India, December 10-14, 2013.
2. Rajat K. De and AnupamGhosh “Neuro-fuzzy methodology for selecting genes mediating lung cancer”,*Proceedings of the 4th International Conference on Pattern Recognition and Machine Intelligence (PReMI 2011)*, LNCS 6744, pp. 388–393, Moscow, Russia, 2011.
3. AnupamGhosh, Rajat K. De, “A fuzzy entropy based approach for development of Gene Prediction Networks (GPNs): detecting altered dependency in carcinogenic state”, *Proceedings of the ACM Conference on Bioinformatics, Computational Biology and Biomedical Informatics (ACM BCB)*, pp. 320-324, Chicago, USA, 2011.
4. R RMajhi, S Chattopadhyay, S Chattopadhyay, A Ghosh, “Analysis of Electro-Cardiogram by Radar and DWT based Kurtosis Comparison”, *Proceedings Michael Faraday IET International Summit: MFIS-2015*, pp.621-625 , Kolkata, India, September 12 – 13, 2015.
5. R RMajhi, S Chattopadhyay, S Chattopadhyay, A Ghosh, “Radar Assessment of Wavelet decomposition based Skewness of ECG Signals”, *Proceedings Michael Faraday IET International Summit: MFIS-2015*, pp.626-630 , Kolkata, India, September 12 – 13, 2015.
6. SujaySaha, AnupamGhosh, SaikatBandopadhyay and KashiNathDey, “An Improved Fuzzy Based Approach To Impute Missing Values In DNA Microarray Gene Expression Data With Collaborative Filtering”,*Fifth Intl. Conference on Advances in Computing, Communications and Informatics (ICACCI)*, pp: 916-921, Sept. 21-24, 2016, Jaipur, India, IEEE
7. SujaySaha,AnupamGhosh,SaikatBandopadhyay,KashiNathDey, “An Ensemble Based Missing Value Estimation In DNA Microarray Using Artificial Neural Network”, *Second International Conference on Research in Computational Intelligence and Communication Networks (ICRCICN)*, 2016, pp: 279-284, IEEE

8. Sougata Sheet, Anupam Ghosh and Sudhindu Bikash Mandal, "Selection of Genes Mediating Human Leukemia, using Boltzmann Machine", *Advanced Computing and Communication Technologies. Advances in Intelligent Systems and Computing*, vol 562. Pp-83-90, Springer, Singapore, Panipath, Hariyana, 18-20 Nov, 2016, DOI https://doi.org/10.1007/978-981-10-4603-2_9
9. S. Sheet, A. Ghosh and S. B. Mandal, "Selection of genes mediating human leukemia, using an Artificial Neural Network approach," *2017 Third International Conference on Advances in Electrical, Electronics, Information, Communication and Bio-Informatics (AEEICB)*, Chennai, India, 2017, pp. 210-214. doi: 10.1109/AEEICB.2017.7972415
10. Partho Mallick, Priyanka Seth, Anupam Ghosh and Jayanta Poray. A Lung Cancer Diagnostic Framework Using Gene Prediction Graph, ICCT-2017, Manipal University Jaipur, 2017 (Accepted)
11. Jit Gupta, Sayak Paul, Anupam Ghosh, A novel Transfer Learning based missing value imputation on discipline diverse real test datasets-A comparative study with different machine learning algorithms, IEMIS2018, 2018 (Accepted)
12. Sougata Sheet, Anupam Ghosh, Amlan Chakrabarti and Ranjan Ghosh, Cancer Mediating Biomarker Recognition using Restricted Boltzmann Machine - An Application on Human Leukemia, ACSS 2018, 2018 (Accepted)
13. Anjan Kumar Payra, Anupam Ghosh and Pabitra Mitra, Controllability of network: Identification of Controller Genes in a gene-gene interaction network, IEMIS2018, 2018 (Accepted)
14. Partho Mallick, Oindrila Ghosh, Priyanka Seth and Anupam Ghosh, An Optimized Machine Learning Approach influenced by Kohonen's Self Organizing Map predicting Gene Dependency for Cancer Mediating Biomarkers, IEMIS2018, 2018 (Accepted)
15. Partho Mallick, Priyanka Seth, Anupam Ghosh, "Entropy based Prediction Graph for Gene Ranking (EPGGR) in a Fuzzy framework—An application to identify the biomarkers for human Lung adenocarcinoma Datasets" *International Conference on Inventive Computing Systems and Applications (ICICSA)*, Pattaya, Thailand, 2018 (Accepted)

Book Chapter:

1. Anupam Ghosh and Rajat K. De, "Gaussian Fuzzy Index (GFI) for cluster validation: Identification of high quality biologically enriched clusters of genes and selection of some possible genes mediating lung cancer" *Machine Interpretation of Patterns: Image Analysis and Data Mining*, R. K. De, D. P. Mandal, and A. Ghosh (Eds.), pp. 680-687, World Scientific, Singapore, 2013.

2. Sheet S., Ghosh A., Mandal S.B. (2018) Selection of Genes Mediating Human Leukemia, Using Boltzmann Machine. In: Choudhary R., Mandal J., Bhattacharyya D. (eds) Advanced Computing and Communication Technologies. Advances in Intelligent Systems and Computing, vol 562. Springer, Singapore

13. Research Project:

Investigator of a two-year joint research project with Bengal Engineering and Science University (BESU) under Technical Quality Improvement Program (TEQIP) in the field of Bioinformatics

(Title: Development of an efficient bioinformatics tool for gene expression data analysis.

Fund amount: 8 lakhs

Duration: 2006-2008)

Related Publication:

1. Amit Paul, Anupam Ghosh, and Jaya Sil, “Dimension reduction of gene expression data using redundancy removal algorithm-data compression approach”, *International Journal of Bioinformatics*, 1, pp. 19-30, 2008.

14. Subjects taught/teaching in B. Tech. and M. Tech. level:

- 1) Operating Systems, 2) Computer Architecture & Organization, 3) Computer Networks 4) Bioinformatics, 5) Data mining 6) Soft Computing 7) Artificial Intelligence

15. Number of Ph.D, UG and PG Students Guided/Guiding

Ph.D Student		UG Student		PG student	
Guided	Ongoing	Guided	Ongoing	Guided	Ongoing
0	1 (Registered)	40	4	8	1

a) Teaching experience: 14 years

Serial No.	Title of course taught	Postgraduate or Undergraduate	Sole instructor or with others	Year
1	Operating Systems	Undergraduate	Sole instructor	2015-16/16-17
2	Advance Operating Systems	Postgraduate	Sole instructor	2015-16/16-17
3	Data Mining	Undergraduate	Sole instructor	2015-16/16-17
4	Neural Network	Undergraduate	Sole instructor	2015-16
5	Soft Computing	Undergraduate	Sole instructor	2015-16/16-17
6	Bioinformatics	Postgraduate	Sole instructor	2015-16/16-17

Note: From 2002, I have taken the classes of the courses like Computer Organization, Computer Architecture, Operating Systems, Artificial Intelligence, System Software & Administration

- **Total years of Post Graduate Teaching Experience: 8 years**

Sl no.	Name of the Student/research Scholar	Title of the thesis	Doctorate/Master level	Year of Completion	Co-guide, if any
1	Mr. Sougata Sheet	“Cancer mediating Gene Selection using Soft Computing Techniques””—	Doctorate (On going)	Registered as a Ph.D scholar in University of Calcutta; Reg: No: 05827/Ph.D (Tech) Proceed/2017 dt. On 17.08.2017	Yes
2	Mr. Sougata Sheet	Identification of Cancer Mediating Genes Using Neural Network-Back propagation Learning Mechanism.	Master Level (M.TECH)	2014	No
3	Mr.Bipin Kumar Das	Identification of cancer mediating genes using Bayesian Classifier on Gene Expression Data	Master Level (M.TECH)	2014	No
4	Mr.Santanu Chattopadhyay	Radar Assessment of Wavelet	Master Level (M.TECH)	2015	Yes

		decomposition based Skewness of ECG Signals			
5	Mr.Rajat Raman Majhi	Analysis of Electro-Cardiogram by Radar and DWT based Kurtosis Comparison	Master Level (M.TECH)	2015	Yes
6	Mr.Sudipta Pan	Handwritten & Face recognition using Neural Network	Master Level (M.TECH)	2015	No
7	Mr.SaumitraBiswas	A Dynamic Multistage Multiclass Classifier	Master Level (M.TECH)	2014	No
8	Mr. Tapas kr. Mitra	Cancer gene detection using Artificial Neural Network	Master Level (M.TECH)	2011	No
Some of the M.TECH projects are mentioned here & Two Projects are on-going in 2016-17 academic session.					

16. Key Achievements/Awards/Lecture/Presentation:

Serial no.	Achievement	Awarded by (Organization)	Year
1. Under my headship, B.TECH Computer Sc. & Engineering of NetajiSubhash Engineering College has been awarded 2-years Accreditation by NBA for 2016-17 & 2017-18 (assessment years 2013-14, 2014-15, 2015-16)			
2	“Faculty of the year 2010”	Netaji Subhash Engineering College	23rd January, 2011
3	“Partners in Success 2013”-- Recognized as Gold partner faculty under Inspire	Infosys	July, 2013
4	“Certificate for Recognition” -- for outstanding performance in Campus Connect Program as a SPoC(Single Point of Contact)	Infosys	July, 2012
5	Certificate on Pedagogical Training	Engineering Staff College of India	7th-29th Nov, 2008
6	Refresher course on “Parallel and Distributed Technologies for High performance Computing”	University Grand Commission	3rd - 22nd January, 2005

7	Short-term training program on "Induction Training"	National Institute of Technical Teachers Training and Research	19 th - 31 st March, 2007
8	Certification for High impact teaching skill" --"MISSION 10X	Wipro, Dale Carnegie	25 th -30 th January, 2010
9	"Workshop on Linux Administration"-Trainer	NetajiSubhash Engineering College	21 st – 23 rd February, 2011
10	"Workshop on Bioinformatics"- Resource Person	University of Calcutta	12-13 th February, 2009
11	International Conference Paper Presentation— <i>Authors: Anupam Ghosh and Rajat K. De, "Gaussian Fuzzy Index (GFI) for cluster validation: identification of high quality biologically enriched clusters of genes and selection of some possible genes mediating lung cancer"</i>	PRemI'13	10-14 th December, 2013
12	Performance in Campus Connect	Infosys	2015-2016
13	AICTE approved FDP coordinator "Foundation Program in ICT for Education"	MHRD, Govt. of India	3 rd August, 2017 to 7 th Sept, 2017
14	Resource Person of A two-day Workshop on NBA in collaboration with Islamic University of Science & Technology, J&K on December 14-15, 2017 under the TEQIP – III programme at New Delhi	MAKAUT, WB	14 th – 15 th Dec, 2017

17. Academic Activities:

- Taking the classes of INFOSYS campus Connect.
- Organized and participated in 32 seminars/workshops/short-term courses/conference. (*Please see Annexure I.*)
- Set up the Bioinformatics research laboratory in 2007.
- Organized the seminars and workshops from 2006 under TEQIP (including BIOINFOCOM-2006, Courseware2007, and Patterncon2009).
- Appointed as 3rd year CSE teacher advisor.
- Taking the classes of M.Tech., B.Tech, B.E students, mentoring the projects of B.Tech. and M.Tech. student.
- Associated with University of Calcutta, Jadavpur University as a Visiting Faculty

18. Administrative Activities:

- Acting as the Head of the Department of Computer Sc. & Engineering from January, 2014.
- NBA coordinator, NSEC, from August, 2017 to till date
- In-charge Training Cell, NSEC from November, 2017 to till date
- Coordinator R&D Cell, NSEC from November, 2017 to till date
- Appointed as a SPoC person of Infosys Campus Connect Program from May, 2011 till date
- Appointed as the CSE Departmental in-charge during 29th-30th December 2009
- Convener of student's Committee (TEQIP phase I)
- Appointed as a University Station Supervisor (USS) during the semester examination.
- Member of Academic Committee
- Member of Central examination cell.
- Member of the anti ragging committee.
- Member of TIG cricket and football team

29.Extra-Curricular Achievements:

- 3rd placed in the category of 100m and hit the wicket in ATHLETOSE'15

Signature

Annexure I: List of Short-term Courses/Seminars/Refresher Courses/Workshops/Conferences

Serial	Title of the course	Organization	Duration	Venue
1.	Tutorial on “Embedded Systems and their Applications In Mobile Communications”	IEEE Calcutta sections	1 st October, 2004	Park Hotel, Kolkata
2.	Course on “Object Oriented Analysis and Design using UML with Rational Rose”	Education Centers for IBM software	3 rd - 8 th January, 2005	NetajiSubhashEngineeringCollege , Kolkata
3.	Refresher course on “Parallel and Distributed Technologies for High performance Computing”	UGC sponsored; Organized by JadavpurUniversity	3 rd - 22 nd January, 2005	JadavpurUniversity, Kolkata
4.	Short-Term course on “Soft Computing & Applications”, under the QIP.	Sponsored by AICTE, organized by Bengal Engineering and ScienceUniversity, (now Indian Institute of Engineering, Science and Technology)	27 th June to 8 th July, 2005	Bengal Engineering and ScienceUniversity, (now Indian Institute of Engineering, Science and Technology) Howrah
5.	BIOINFOCOM '06	TEQIP organized by NetajiSubhashEngineeringCollege	31 st March- 1 st April, 2006	NetajiSubhashEngineeringCollege , Kolkata
6.	Short-Term course on “Embedded Systems”	Organized by Central Mechanical Research Institute, Durgapur,	27 th December 2005 to 7 th January 2006.	CMERI, Durgapur
7.	Short-Term course on “Introduction to Micro controllers, FPGAs and their applications in Embedded Systems”	TEQIP, organized by Bengal Engineering and ScienceUniversity, (now Indian Institute of Engineering, Science and Technology)	6 th - 11 th February 2006.	Bengal Engineering and ScienceUniversity, (now Indian Institute of Engineering, Science and Technology) Howrah
8.	Short-term training program on “Induction Training”	AICTE sponsored, Organized by NITTTR, Kolkata	19 th - 31 st March 2007.	NetajiSubhashEngineeringCollege
9.	Courseware'07	TEQIP organized by NetajiSubhashEngineeringCollege	26 th April, 2007	NetajiSubhashEngineeringCollege
10.	Workshop on “XML and DB2”	IBM	26 th - 28 th July, 2007	Govt. college of Ceramic Technology, Kolkata
11.	BIOINFOCOM'07	TEQIP, organized by NetajiSubhashEngineeringCollege	Nov, 2007	NetajiSubhashEngineeringCollege

12.	International Conference on pattern-recognition(PReMI'07)	Indian Statistical Institute	18 th -22 nd Dec,2007	Indian Statistical Institute, Kolkata
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Serial	Title of the course	Organization	Duration	Venue
13.	Soft-Comp 2008	NetajiSubhashEngineeringCollege , TEQIP	13 th -14 th March, 2008	NetajiSubhashEngineeringCollege
14.	Workshop on "Teaching Methodology"	Organized by AmericanCenter and Techno India Group, at Techno India, SaltLake, Kolkata	14 th - 23 rd July, 2008.	Techno India, Saltlake, Kolkata
15.	Program on Pedagogical Training	QIP, EngineeringStaffCollege of India, Hyderabad	7 th -29 th Nov, 2008	EngineeringStaffCollege of India , Hyderabad
16.	Workshop on LINUX System Administration	TEQIP, Bengal Engineering and ScienceUniversity, (now Indian Institute of Engineering, Science and Technology)	Dec,2008	Bengal Engineering and ScienceUniversity, (now Indian Institute of Engineering, Science and Technology) Howrah
17.	Courseware'09	TEQIP organized by NetajiSubhashEngineeringCollege	27 th Feb, 2009	NetajiSubhashEngineeringCollege
18.	Building competency for academic management & industrial Collaboration"	TEQIP, organized by NetajiSubhashEngineeringCollege	March '2009 (7 th ,14 th ,21 st ,28 th)	NetajiSubhashEngineeringCollege
19.	Patterncon'09	TEQIP, organized by 2009	25 th - 27 th March '09	NetajiSubhashEngineeringCollege
20.	INSIGHT'09	Infosys	30 th - 31 st March, 2009	Infosys, Bhubaneswar
21.	Application of Bioinformatics in Today's experimental biology	School of Biotechnology & Biological Science; WBUT	9 th - 11 th Sept, 2009	WBUT, Saltlake, Kolkata
22.	MISSION 10X	Wipro, Dale Carnegie	25 th -30 th Jan,2010	MegnadSaha Institute of Tecnology, Kolkata
23.	Workshop on Linux Administration	NetajiSubhashEngineeringCollege	21 st - 23 rd Feb, 2011	NetajiSubhashEngineeringCollege
24.	National Level Workshop on Information Retrieval	IRSI &NetajiSubhashEngineeringCollege	21 st July, 2012	NetajiSubhashEngineeringCollege
25.	ISTE Workshop on DBMS by	Indian Institute of Technology (Bombay),ICT(MHRD)	21 st - 31 st May,2013	NetajiSubhashEngineeringCollege

	IIT, Bombay (MHRD)			
26.	One day workshop on android applications	NetajiSubhashEngineeringCollege	Nov,2013	NetajiSubhashEngineeringCollege

Serial	Title of the course	Organization	Duration	Venue
27.	International Conference Paper Presentation— <i>Authors:</i> <i>Anupam Ghosh and Rajat K. De,</i> <i>“Gaussian Fuzzy Index (GFI) for cluster validation: identification of high quality biologically enriched clusters of genes and selection of some possible genes mediating lung cancer”</i>	PreMI’13, ISI	10-14 th December, 2013	Indian Statistical Institute, Kolkata, India
28.	Mobile Applications using Android— TTT Program by Infosys	Infosys	21 st to 23 rd April, 2014	NetajiSubhashEngineeringCollege
29.	Two week ISTE Workshop on Computer Networking	Indian Institute of Technology (Bombay), ICT(MHRD)	30 th June -5 th July, 2014	NetajiSubhashEngineeringCollege
30.	Two day workshop on “Funding opportunities and success stories of capturing grant”	Techno India Group	11 th July – 12 th July, 2014	NetajiSubhashEngineeringCollege
31.	Two week ISTE main Workshop on Cyber Security	Indian Institute of Technology (Bombay), ICT(MHRD)	10 th July – 20 th July, 2014	NetajiSubhashEngineeringCollege
32.	4-week workshop on Use of ICT in Education for Online and Blended Learning	IIT, Bombay	2 nd May to 10 th July, 2016	NetajiSubhash Engineering College
33	3-Day Workshop on iSIGCSE& ACM annual event	ACM	19 th -21 st January, 2017	Amity University, Kolkata
34	10 days’ Workshop on “IoT, Big Data & Cloud Computing”	NIT Patna	8 th Feb – 18 th Feb, 2017	Techno India, Saltlke
35	2 weeks Workshop on Machine Learning on Big Data	NIT Patna	4 th -14 th July, 2017	Techno India, Saltlke