

# CURRICULUM VITAE

## **NIRMALYA MUKHOPADHYAY**

S/O, Shree Harindra Kumar Mukhopadhyay,  
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### **CONTACT DETAILS:**

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### **CAREER OBJECTIVES:**

I desire to build a career with commitment and dedication, using my potential strenuously for the continuous development and overall benefit of my organization. I wish to touch the limits of excellence by sharing a mutually symbiotic relationship in a competitive environment by learning, proving & driving myself to the zenith.

### **EDUCATIONAL PROFILE:**

EXAMINATION	INSTITUTION	BOARD	YEAR OF PASSING	PERCENTAGE SECURED
Ph. D. (CSE)	IIT BHAGALPUR	IIT BHAGALPUR	Pursuing	Pursuing
M. Tech (CST)	B.C.R.E.C.	MAKAUT (FORMERLY W.B.U.T.)	2012	8.44
B. Tech (CSE)	B.I.E.T.	MAKAUT (FORMERLY W.B.U.T.)	2009	7.85
HIGHER SECONDARY	BK.T.P.P.P.S.V.	W.B.C.H.S.E.	2005	72.90%
SECONDARY	BK.T.P.P.P.S.V.	W.B.B.S.E.	2003	81.75%

### **PUBLICATIONS:**

#### **In Conferences:**

1. Nirmalya Mukhopadhyay and Babul P. Tewari, “Efficient IaC-based Resource Allocation for Virtualized Cloud Platforms”, Accepted, presented and appeared to be in ANTIC 2021 (Advanced Network Technologies and Intelligent Computing) (Springer CCIS proceedings, indexed in SCOPUS, DBLP, Google Scholar, EI-Compendex, Mathematical Reviews, SCImago, ISI Proceedings) held on 17<sup>th</sup> – 18<sup>th</sup> December 2021 at IIT BHU.

2. Nirmalya Mukhopadhyay and Abhijit Bhowmick, “**Grid Computing: Overview and Advantages over Traditional IT Systems in Business Enterprises**”, 10<sup>th</sup> & 11<sup>th</sup> January 2012, ICBAMI (International Conference on Business Application & Management Issues), at Dr. B.C. Roy Engineering College, Durgapur, West Bengal, India.

### In Journals:

1. Golam Mostafa, Ananta Uzir and Nirmalya Mukhopadhyay, “**A Novel VM Hardening Policy for Enhancing VM Security under Cross-Virtualization Platform**”, June 2021, Volume 8 Issue 6, International Research Journal of Engineering and Technology (ISO 9001:2008 Certified Journal), e-ISSN: 2395-0056, Pages: 778-791, Paper Id: IRJET-V8I6141.
2. Bedanta Goswami, Moon Kalita, Rahmatulla Hussain and Nirmalya Mukhopadhyay, “**A Cloud-Hosted Advanced Event Management System for Secure Event Organization & Management around the North-East Part of India**”, May 2021, Volume 8 Issue 5, International Research Journal of Engineering and Technology (ISO 9001:2008 Certified Journal), e-ISSN: 2395-0056, Pages: 615-622, Paper Id: IRJET-V8I6113.
3. Rajdip Paul and Nirmalya Mukhopadhyay, “**A Novel Python-based Voice Assistance System for Reducing the Hardware Dependency of Modern Age Physical Servers**”, May 2021, Volume 8 Issue 5, International Research Journal of Engineering and Technology (ISO 9001:2008 Certified Journal), e-ISSN: 2395-0056, Pages: 1425-1431, Paper Id: IRJET-V8I5276.
4. Nirmalya Mukhopadhyay, Tushar Kanti De and Dipankar Chatterjee, “**A Novel Virtualization Enabled Cloud Infrastructural Framework for Enhancing Private Cloud Communication Security**”, March 2021, Volume 10, No. 1, International Journal of Information Security Science (UGC Care Journal), ISSN: 2147-0030, Pages: 16-25, Paper Id: 781-2765-1-PB.
5. Nirmalya Mukhopadhyay, “**A Strategic Game Theory Model Based Social Network Analysis for Multiuser Bandwidth Rate Allocation using Predictive Artificial Neural Network**”, January 2018, Volume 8 Issue 1, *International Journal of Advanced Research in Computer Science & Software Engineering*, ISSN(E): 2277 128X, ISSN(E): 2277 6451, Pages: 112-123, Paper Id: V8I1- 541-1242-1-PB.
6. Nirmalya Mukhopadhyay, Aparna Sen and Subhajit Roy, “**A Hypothetical Authentication Scheme for Enhanced Grid Security**”, March 2015, Volume 5 Issue 3, *International Journal of Advanced Research in Computer Science & Software Engineering*, ISSN: 2277 128X, Pages: 269-280, Paper Id: V5I3- 0183.
7. Soumen Biswas and Nirmalya Mukhopadhyay, “**Developing a New Use-Case Approach to Improve Analysis of SRS for A System**”, April 2014, Volume 4 Issue 4, *International Journal of Advanced Research in Computer Science & Software Engineering*, ISSN: 2277 128X, Pages: 590-602, Paper Id: V4I4-0392.
8. Nirmalya Mukhopadhyay, Abhijit Bhowmick and Abhishek Bandyopadhyay, “**A Proposed Robust Authentication Approach for Secure Data Transmission in Grid Computing Environment**”, July 2012, Volume 50 Issue 22, *International Journal of Computer Application (0975-8887)*, Pages: 12-16, Paper Id: PXC-3881138.
9. Nirmalya Mukhopadhyay and Abhijit Bhowmick, “**Advanced Authentication Scheme for Enhancing Security Issue in Grid Environment**”, April 2012, Volume 2 Issue 4, *International Journal of Advanced Research in Computer Science & Software Engineering*, ISSN: 2277 128X, Pages: 344-348, Paper Id: V2I4-00160.

## **PATENT:**

**Patent Title:** A System for Providing Data Security in A Multi-Party Gaming Environment on Cloud Network and Method Thereof

**Details:** The Application number is 202131017847 & Journal number is 20/2021 published under the Government of India on 14/05/2021.

**Link:** <https://ipindiaservices.gov.in/PatentSearch/PatentSearch/ViewApplicationStatus>

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## **PROJECT WORK:**

- B. Tech: **Online Railway Reservation System.**
  - M. Tech: **Developing Robust Authentication Scheme in Grid Computing for Secure Data Transmission.**
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## **TRAINING EXPOSURE:**

- A vocational training on **Computer Application In Analog And Digital Mobile Transmission System** in BSNL Office, Jalpaiguri, West Bengal in the year of 2007-2008 in December- January session.
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## **WORK EXPERIENCE:**

- I am presently employed as an **Assistant Professor** in the department of Information Technology at Gayatri Vidya Parisad College of Engineering for Women, Visakhapatnam, Andhra Pradesh. I am extending my service from 02/03/2022.
  - I was employed as an **Assistant Professor** in the department of Computer Engineering at **Marwadi University**, Rajkot, Gujarat from 06/12/2021 to 28/02/2022.
  - I was employed as an **Assistant Professor** in the department of Computer Science & Engineering (**Specialized in Cloud Computing & Technology**) at **iNurture Education Solutions Pvt. Ltd.**, from 28/09/2015 to 05/12/2021, (deputed at **Kaziranga University**, Jorhat, Assam from 28/09/2015 to 11/01/2019 and then deputed at **Assam Down Town University**, Guwahati, from 12/01/2019 to November 2021).
  - I was employed at **Bihar Association College of Engineering & Technology** as an **Assistant Professor** in the department of Computer Science & Engineering from 01/02/2013 to 22/09/2015.
  - I have worked as **Lecturer (HOD)** in CST department, as well as **Assistant Examination Controller** at **Bengal Institute of Polytechnic** from 08/09/2011 to 28/01/2013.
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## **RESEARCH EXPERIENCE:**

- Presently I am continuing my research on Virtualization & Cloud Computing towards completion of my PhD degree at Indian Institute of Information Technology, Bhagalpur (An Institute of National Importance under MHRD, Government of India), under the supervision of Prof. Dr. Babul P. Tewari (Assistant Professor, Department of Computer Science & Engineering, IIIT, Bhagalpur).
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## **FIELDS OF INTERESTS:**

- **Subjects involving Programming:**
  - ✓ IaaS implementation through IaC using HCL through Terraform Framework.
  - ✓ ESXi Virtualized Server Configuration using HCL.
  - ✓ Cloud Scripting using PaaS using Java & Go.
  - ✓ Infrastructure Automation in Cloud using Windows PowerShell.
  - ✓ Socket Programming with Java.
  - ✓ Object Oriented Programming using C++.

- ✓ Object Oriented Programming using Java.
- ✓ Dot Net Technology using C#.
- ✓ Programming in C.

➤ **Core Subjects:**

- ✓ Server Virtualization with ESXi Server Virtualization Framework.
- ✓ Cloud Computing, Cloud Deployment, Virtualization Technologies in Cloud Computing, OpenStack, Docker, Kubernetes etc.
- ✓ Operating Systems, Desktop Operating Systems, Server Operating Systems (ESX & ESXi Servers, V5.x & V6.x), Kernel Configurations in VMKernel through ESXi CLI.
- ✓ Virtualization Security & Cloud Security, MapReduce Programming Model for Cloud.
- ✓ Cloud Scripting using PaaS, Google Application Engine, GAE Programming.
- ✓ Infrastructure Solutions in Cloud, IaaS Designing & Architecture.
- ✓ Cloud Web Services, Amazon Web Services, Microsoft Azure & Google Cloud.
- ✓ Load Balancing in Cloud, Scheduling in Cloud, Cloud Solutions Configuration, Resource Optimization, Cost Optimization & Performance Optimization, Cloud Migration.
- ✓ Distributed Computing, Grid Computing.
- ✓ Google Cloud Plugins in Eclipse.
- ✓ RMI Technology, Thread Programming.
- ✓ Object Oriented Database System.
- ✓ COBIT, Val IT & Risk IT and Fundamentals of ITIL.
- ✓ OWASP Security Framework.

➤ **Cloud Simulators used:**

- ✓ VMWare Workstation Pro, ESXi Server Virtualization Framework
- ✓ CloudSim, Cloud Analyst, Cloud Reports.
- ✓ Terraform

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**RESPONSIBILITIES OTHER THAN TEACHING:**

**A. Supporting IT Academics Vertical:**

1. I am an active member of Research Cohort Group. I am therefore taking care of all the research activities and requirements (Cloud Domain based) of the Students in my ADTU campus.
2. I am an active member of IIAC Team. I have participated two or such meetings for scrutinizing and finalizing Cloud based Subjects and their syllabuses for different Universities.
3. I have been in the committee for evaluating Virtual Lab facility provided by Nuvepro for iNurture.
4. I have successfully curated contents for 6 Cloud Subjects in due timeline.
5. I have prepared a lot of Course Matrices and detailed syllabuses for Cloud Domain for different Universities.
6. I have prepared contents & videos on different Cloud Subjects for FDP organized by iNurture for the M. Tech Freshers new joiners.
7. I have conducted Cloud FDP live sessions for the M. Tech Freshers new joiners.

8. I have attended all the Cloud based activities at my Campus or other Campuses or at HO on demand as I have been regarded as an expert in Cloud Technology Domain.
9. I have taken part in all the Cloud related Workshops/ Webinars took place at my Campus time to time.
10. I have been an active member of ARA project.
11. Prepared Question Banks for different subjects for iNurture curriculum.
12. Designed TOC & TLP of different courses under iNurture curriculum.

**B. Supporting Marketing Vertical:**

1. I have prepared videos on Cloud Technology Specialization Course for our Marketing Team to enhance their marketing strategy for attracting more Students in our specialization courses.
2. Presented seminar for the upcoming students at Kaziranga University and had Telephonic conversation with students who took admission in MCA (CTIS) course.

**C. Supporting HR Vertical:**

1. I have taken a lot of technical interviews (1<sup>st</sup> round) for the recruitment of Cloud Faculty/ Senior Faculty/ SME positions for iNurture.
2. Referred several CVs for Faculty/Staff recruitment to HR team through referral program.

**D. Supporting CRASA Vertical:**

1. I have designed syllabus, prepared contents & videos on different Cloud Subjects for Pre-placement Sessions organized by iNurture for the final and pre-final year students of iNurture from different University campuses for last two years.
2. I have delivered sessions on different Cloud Subjects for Pre-placement event organized by iNurture for the final and pre-final year students of iNurture from different University campuses for last two years.

**E. Supporting ITM University Raipur (Online Mode):**

1. I have delivered Guest Lectures on Three different Cloud based Subjects and the associated Labs throughout last two Semesters at ITM University Raipur to adjust the load of the existing Faculty members of ITM and to deal with non-availability of Cloud Faculty for the Campus.
2. I have supported ITM University Raipur in online Examination process as an external examiner.

**F. Supporting Jain University and Brainware University (Online Mode):**

1. I have supported Jain University in online Examination process as an external examiner for the last two Semesters.
2. I have conducted online Seminar to support the Academic process at Brainware University.

**G. Administrative support at ADTU (Both online & offline) and Kaziranga University:**

1. I am mentoring Int. MCA 6<sup>th</sup> Semester Students and taking care of all academic and some non-academic issues for them. They have successfully completed some certifications and a lot of MOOC Courses. Some of them are drafting their first research papers under my guidance.
2. I am an active member from iNurture in the NAAC committee at ADTU. I have been working towards the improvement of NAAC score in Criteria 3.1.2 and have attended a lot of meetings with IQAC and ADTU authorities.
3. I have lead knowledge sharing sessions in my ADTU campus which benefitted a lot of new Faculty members and General Faculty members.
4. I have played the role of Shadow SPOC at Kaziranga University and helped the SPOC in every critical situation to keep the respect of iNurture. I have shared my experience and given suggestions to ADTU SPOC also on demand.
5. I have taken responsibility in setting up a new Cloud Lab Infrastructure at ADTU.
6. I have taken the responsibility of Subject Distribution at my Campus under direct supervision of my Academic Head Dr. Manas Paul Sir and we have made a systematic and fair process of Subject allocation at ADTU which was previously followed at Kaziranga University.
7. I am leading the Routine Committee at ADTU and also monitor the regular class conduction status under direct supervision of my Academic Head Dr. Manas Paul Sir.
8. I have successfully completed ERP Course Registration for my Mentee Batch and other ERP related tasks such as Uploading of Subject Notes, Uploading of Questions, Creation of Backlog Question Papers, Moderation of Questions, Tabulation of Marks etc. as and when assigned by the University.
9. Work with full pleasure to implement mentoring policy presently at ADTU under the direct supervision of Dr. Manas Paul Sir.
10. Actively participated in Student's placement program as assistant placement co-ordinator at Kaziranga University from iNurture.
11. Actively participated in BOS meeting at Kaziranga University for finalizing the syllabus for Cloud Subjects.
12. Conducted Open House activity to listen to the students' grievances and taken remedial measures to mitigate academic and non-academic issues.
13. Conducted Seminar on Cloud Technology at Kaziranga University for Students under the supervision of Dr. Manas Paul Sir and SPOC in 2018.
14. I am an active member from iNurture in the NAAC committee at Kaziranga University.
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**H. Supporting Academic Operation Vertical:**

1. Participated directly in Academic Operation activities as and when asked for to serve iNurture in critical condition.

### **I. Personal Development & Involvement as a Faculty of iNurture:**

1. I have continuously involved in Research activities. I have published 10 Research Papers in reputed Journals, communicated one more, published 1 Research Paper in an International Conference, communicated 1 Book Chapter and Published 1 Patent under Government of India in recent past.
2. I have become Reviewer of Two International Journals and reviewed three Research Papers on Cloud Domain.
3. I enrolled to register myself in Ph.D. in the Department of CSE at IIIT Bhagalpur.
4. I have attended Cloud+ Training in Bangalore organized by iNurture.
5. I have guided almost 15+ Cloud based Projects and in last semester my three groups have successfully published their Research Papers on Project under my supervision in an International Journal.
6. I have successfully completed 50+ Webinars, participated on 6 FDPs, participated on 2 International Conference, 5+ Quizzes and completed 20+ MOOC courses till date.

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### **AFFILIATION & RECENT WORKS:**

- Associated with **Dr. Babul Prasad Tewari**, Assistant Professor, IIIT Bhagalpur for carrying out my research work under his supervision from the last few months. We have submitted an Abstract for a Book Chapter and working on two Research Papers on Cloud Domain.
- Member of **CSTA (Computer Science Teachers Association**, Membership No.: **9148276**) & **ACM (Association for Computing Machinery**, a part of CSTA) since July 2013.
- Member of **IEEE (Institute of Electrical & Electronics Engineer)** since July 2013.
- Member of **IAENG (Membership No.: 150489)** since January 2015.
- I have reviewed a manuscript titled **Tracking Board for Unsafe Act for The Hertz Journal of Engineering** on May 2021.
- I have reviewed a manuscript titled **Survey on Context Aware Computing and IoT Environment for The Hertz Journal of Engineering** on June 2020.
- I have reviewed a manuscript titled **A Random Policy based Hierarchical Load Balancing Technique using Variable Threshold Value in Grid for International Research Journal of Computer Engineering** on September 2013.
- Member of **AASCIT (American Association for Science & Technology)** since February 2014.
- Actively participated in the **SAT@home** project using **BOINC**. Created a new team **SAT@BACET** for better execution & contribution towards voluntary computation from **India**.
- Actively participated in **VolPEX** project using **BOINC** with the **North Carolina State University** as their team member.
- **Google Scholar** since July 2012.

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### **EDITORSHIP:**

Member in the editorial board of *The Crossover*, a multidisciplinary bi-annual magazine published from Jamshedpur by *Symphony Publications*.

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**PERSONAL PROFILE:**

Name:	Nirmalya Mukhopadhyay
Date of Birth:	21 <sup>st</sup> October, 1987
Mother's Name:	Smt. Kalpana Mukhopadhyay
Father's Name:	Shree Harindra Kumar Mukhopadhyay
Marital Status:	Single
Sex:	Male
Nationality:	Indian
Language Proficiency:	Bengali, Hindi, English (Read, Write & Speak)

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**DECLARATION:**

I hereby declare that all the above-mentioned information and facts are true, correct and complete to the best of my knowledge and belief.

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**REFERENCES:**

- Dr. Babul Prasad Tewari, Assistant Professor, Department of Computer Science & Engineering, Indian Institute of Information Technology, Bhagalpur, Bihar, India, Mobile No.: +91-6297479700, Email-Id: [bptewari.cse@iiitbh.ac.in](mailto:bptewari.cse@iiitbh.ac.in)
- Dr. Shankar K Ghosh, Assistant Professor, Department of Computer Science & Engineering, Presidency University, Bangalore, India, Email-Id: [shankar.it46@gmail.com](mailto:shankar.it46@gmail.com)

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Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Place: \_\_\_\_\_

**Nirmalya Mukhopadhyay**