# CENTRAL UNIVERSITY OF JAMMU

## FACULTY PROFILE PERFORMA

| First Name | Deepti | Middle Name | | Last Name | Malhotra | Photograph (attach below) |
|---|---|---|---|---|---|---|
| **Title & Designation** | Dr & Assistant Professor | | | | | |
| **Address** | Department of Computer Science & IT<br>Central University of Jammu.<br>**Rahya-Suchani (Bagla), District Samba,**<br>**Pincode - 181 143,**<br>**Jammu & Kashmir (J&K), India** | | | | | |
| **Phone Number** | | | | | | |
| **Office** | | | | | | |
| **Residence** | | | | | | |
| **Mobile** | 9419228428 | | | | | |
| **Email** | deepti.csit@cujammu.ac.in | | | | | |
| **Web-Page** | | | | | | |

**Educational Qualifications:**

| Degree | Institution | Year |
|---|---|---|
| PhD | Jammu University | 2013 |
| M.tech | Thapar University | 2007 |
| B.Tech | Jammu University | 2005 |

**Career Profile:**

**Administrative Assignments:**

1. As Member Secretary in Cultural Committee ( Skit Committee of the University)
2. As Member of the Digital Learning Cell for promotion and Implementation of technological driven initiatives including MOOCs-Online Learning Platforms SWAYAM & SWAYAM PRABHA.
3. As Member of the Anti ragging Committee.

**Areas of Interest / Specialization:**

Grid Computing, Cloud Computing, Machine Learning and Deep Learning : The Subfields of Artificial Intelligence

**Subjects Taught:**

- Operating Systems
- Parallel Processing
- Discrete Mathematics
- Microprocessors 8085
- Microprocessors 8086
- Data Structures
- Analysis and Design of Algorithm
- Digital Computer Fundamentals
- C-language
- Theory of Computation
- Grid & Cloud Computing
- Data Warehousing and Mining

- Research Methodology.

## Research Guidance:

### Ph.D Students Supervising

| Name | Title |
|---|---|
| Bhagyalakshmi (0150516) 2016-Present | Development of Load Aware Energy Efficient Framework for Cloud Environment |
| Mehak Mengi (0550519) 2019-Present | Development of Automated Diagnostic Assessment Framework For Socio-behavioral Disorders |

### M.Tech Students Supervising

| Name | Topic |
|---|---|
| Rahul Angral (2019-20) (0200518) | Muscle testing for lie detection. |
| Andri Rai (2019-20) (1300518) | A novel approach to filter out standard Notatios for improving academic plagiarism detection |
| Mayaza Mukhtar (2019-20) (1400518) | A Coarse to fine approach for Forgery detection in legal handwritten documents |
| Atal Sharma(2019-20) (1700518) | Baby crying classification using Machine/deep learning |

### M.Tech Students Supervised

| Name | Topic |
|---|---|
| Jagbir kour (2018-19) (0500517 ) | Host load detection in cloud through machine learning |
| Saima fayaz chashoo (2017-18) (102016) | Detection of page faults in postcopy live virtual machine migration |
| Vishalika (2017-18) (1002016) | On energy-efficient resource management in cloud computing |
| Sheetal Kumar(2017-18) (1302016) | Live virtual machine migration pre-copy technique |
| Atul Kumar2017-18) (1602016) | Design & development of fault tolerant model in cloud computing |
| Anisha (2017-18) (2302016) | Design and development of task scheduling algorithm in cloud computing. |
| Minerva Gupta (2017-18) (2402016) | Design And Development Of Efficient Framework For Load Balancing In Cloud Computing |

## Publications Profile:

### a. Research Paper

1. Mehak Mengi[1], Deepti Malhotra[2], "A Coarse-To- Fine Strategy for Identifying Forgery in Legal Handwritten Documents" in IEEE Transactions on Neural Networks and Learning Systems,2020 (Communicated).
2. Jagbir Kaur, Deepti Malhotra,Analysis of Various Virtual Machine Migration Techniques in Cloud Computing, International Journal of Research in Electronics and Computer Engineering(IJRECE), Volume7, Issue3, ISSN:2348-2281,pg244-247,July2019.
3. Atul Kumar, Dr. Deepti Malhotra, Study of Various Reactive Fault Tolerance Techniques in Cloud Computings, International Journal of Computer Sciences and Engineering (IJCSE), Volume6, Special Issue 5, ISSN 2347-2693, pg 50-53,June 2018.
4. Sheetal Kumar, Dr. Deepti Malhotra, Live Virtual Machine Migration Techniques Survey and Research Challenges, International Journal of Computer Sciences and Engineering (IJCSE), Volume6, Issue 1, ISSN 2347-2693, pg 50-53,June 2018.
5. Baghyalakshmi, D.Malhotra, AMRRHC: Active Monitoring Round Robin with Holding Capacity Load Balancing Algorithm, International Journal of Computer Sciences and Engineering (IJCSE), Volume6, Special Issue 3, ISSN 2347-2693, pg 56-60,April 2018[UGC APPROVED]
6. Saima Fayaz Chashoo, Deepti Malhotra,Virtual Machine Migration and placement Schemes-limitations and challenges, International Journal of Computer Sciences and Engineering(IJCSE),Volume 6, Issue 3,pg16-20, ISSN 2347-2693, April 2018.
7. Atul Kumar, Dr. Deepti Malhotra, Study of Various ProactiveFault Tolerance Techniques in Cloud Computings, International Journal of Computer Sciences and Engineering (IJCSE), Volume6, Special Issue 3, ISSN 2347-2693, pg 50-53,April 2018.
8. Anisha, Deepti Malhotra, Load balancing schemes: meataheuristic versus heuristics, International Journal of Latest Trends in Engineering and Technology (IJLTET), with Global Impact Factor - 0.685, Volume10, Issue 1, ISSN 2278-621X, pg 328-330, March 2018..
9. Sheetal Kumar, Dr. Deepti Malhotra,Live Virtual Machine Migration Techniques and Survey, International Journal of Latest Trends in Engineering and Technology(IJLTET), with Global Impact Factor - 0.685, Volume10, Issue 1, ISSN 2278-621X, pg 371-374,March 2018.

10. Vishalika,Deepti Malhotra, EnerPro: Energy Proficiency Platform in Cloud Environment, International Journal of Engineering Science,  Pg 16-22,Special Issue March 2018, Vol. 27, ISSN: 2229-6913.
11. Minerva Gupta, Deepti Malhotra, Load Balancing Schemes in Cloud Environment, International Journal of Engineering Science, Pg 38-42,Special Issue March 2018, Vol. 27, ISSN: 2229-6913.
12. Deepti Malhotra, Amalgamation of Grid Technology and Data Mining _DMG,at Academic Science, International Journal of Innovations Science, and advancements in Computer Science(IJIACS), with Impact factor 2.65, Volume 6, Issue 7 , ISSN 2347-8616,pg141-148, July 2017[ UGC APPROVED].
13. Baghyalakshmi, Deepti Malhotra, A Review:- Different Improvised Throttled load balancing algorithms in cloud computing environments at International Journal of Engineering Technology Management and Applied Science, (IJETMAS), with Impact factor 2.24, Volume 5, Issue 7 , ISSN 2349-4476,pg 409-416, July 2017[UGC APPROVED].
14. Deepti Malhotra, Framework for Preventing Deadlock : A Resource Co-allocation Issue in Grid Environment,at International Journal of New Innovations in Engineering and Technology (IJNIET), Thomson Reuters Researcher ID indexed with Impact factor 4.012, Volume 7 Issue 2– March 2017 , Page no 19-25,ISSN : 2319-6319[UGC APPROVED].
15. Deepti Malhotra, Deadlock Prevention Algorithm in Grid Environment in MATEC Web of Conferences indexed in scopus,Vol 57, May 11 2016,  DOI: 10.1051/ 57, 02013 (2016).
16. Deepti Malhotra, Different deadlock handling strategies in distributed Environment at International Journal of Advanced Research in Computer Science and Software Engineering (IJARCSSE) with Impact factor 2.08 Vol6, Issue 2, February 2016. ISSN: 2277 128X. [UGC APPROVED].
17. Deepti Malhotra, A Minimum Execution Time Job Scheduling Algorithms in Simulated Grid Environment at International Journal of Advanced Research in Computer Science and Software Engineering(IJARCSSE) with Impact factor 2.08 Vol3, Issue 12, December 2013, ISSN:2277 128X. [UGC APPROVED].
18. Deepti Malhotra, Minimum CDT Based Scheduling Algorithm Versus FCFS in Grid Environment at International Journal of Computer Applications (IJCA 0975-8887), with Impact factor 0.835, Vol 68, April 2013. [Published].
19. Deepti Malhotra, SCH_ACR and SCH_LD Based Job Scheduling Algorithm in Grid Environment at International Journal of Computer Applications (IJCA 0975-8887), with Impact factor 0.835, Vol 64, page35-41, February 2013. [Published]
20. Deepti Malhotra[1],Devanand Padha[2],Anik Gupta[3] ,Simulation of  MJ_CDTmin Based Scheduling Algorithms in Grid Environment at International Journal of Computer Applications (IJCA), with Impact factor 0.835,Vol 43, page24-29,March 2012. [Published]
21. Deepti Malhotra[1], Devanand Padha[2] , FrameWork for Job Scheduling in Grid Environment, at International Journal of Computer Applications (IJCA),Vol 38,page42-48,January 2012.[Published].
22. Deepti Malhotra[1], Devanand Padha[2] , A Framework for Trust and Reputation in Distributed Environments, in International Journal of Research and Reviews in Computer Science (IJRRCS) Vol. 2, No. 2, April 2011 p.no 617-626.[Accepted and Published].

| b. | **Books** |
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| c. | **Chapter in books** |
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| d. | **Articles/Research Paper in Books** |
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| e. | **Conference Proceedings** |
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1. Mehak Mengi[1], Deepti Malhotra[2], "$S_pS_iS_b$: The Technique to Identify Forgery in Legal Handwritten Documents", at FICR International Conference on Rising Threats in Expert Applications and Solutions (FICR-TEAS) held on 17-19 Jan,2020 in IIS Deemed University, Jaipur[Accepted].[Scopus].
2. Bhagyalakshmi, Deepti Malhotra, "MWAMLB: Modified Weighted Active Load Balancing Algorithm" at Second International Conference on Recent Innovations in Computing ICRIC 2020 Organized by the Central University of Jammu on 5th June2020.
3. Saima Chashoo, Dr. Deepti Malhotra, "VM_Mig_Framework: Virtual Machine Migration  with and without ballooning", at fifth IEEE International Conference on Parallel, Distributed and Grid Computing (PDGC) organized by the  Jaypee University of Technology, Waknaghat, Solan, Himachal Pradesh, India on 20-22, December, 2018, Pg 368-373. https://ieeexplore.ieee.org/document/8745993.
4. Vishalika,Dr.Deepti Malhotra,"LD-ASG: Load Balancing Algorithm in cloud computing", at fifth IEEE International Conference on Parallel , Distributed and Grid Computing (PDGC) organized by the  Jaypee University of Technology, Waknaghat, Solan, Himachal Pradesh, India on 20-22, December, 2018, Pg 387-392. https://ieeexplore.ieee.org/document/8745948.
5. Baghyalakshmi, Dr. Deepti Malhotra,"A Critical Survey of Virtual Machine Migration Technique in Cloud Computing", at first IEEE International Conference on Secure Cyber Computing and Communications(ICSCCC2018)on 15-17 December 2018 in DR B. R

Ambedkar National Institute of Technology Jalandhar, Punjab, India,pg 328-332.[Published and Presented].

6. Deepti Malhotra[1], Devanand Padha[2] ,MGC Middleware for Grid Computing: **THE GLOBUS TOOLKIT,** at International Conference ACAI 2011, will be held on July 21–22, 2011 in Chitkara University,Rajpura, Punjab, India.[Accepted and Published by ACM Publication].

7. Deepti Malhotra[1], Devanand Padha[2], 'Trusted Grid Computing', Presented in 5th J&K Science Congress held on Feb 8-10, 2010 in Jammu University, Jammu [Published & Presented].

8. Ankur Gupta[1] , Deepti Malhotra[2] and Vineeta Kachroo[3],'Trusted Routing: Overcoming Man-in-the-Middle Attacks in P2P Networks' at IEEE conference held on 6th -7th March 2009 in Thapar University Patiala,Punjab. [Published].

9. Ankur Gupta[1],Deepti Malhotra[2] and Vineeta Kachroo[3] ,'Security Issues In P2P Networks/Computation: A Review' Presented in National Conference on Next Generation Computing and Information Science(NGCIS'09) to be held on 14-15 February 2009 in MIET Jammu. [Published& Presented].

10. Ankur Gupta[1] , Deepti Malhotra[2] and Lalit K. Awasthi[3], 'Neighbor Trust: A Trust-based Scheme for Countering Distributed Denial-of- Service Attacks in P2P Networks' at 16th IEEE International Conference on Networks, **ICON'08**, organized by **IIT**, **Roorkee** held on 9-10 Decmber2008, at New Delhi [Accepted].

11. Deepti Malhotra and Rinkle Aggarwal, "Performance Analysis of Irregular MINs", at 5th International Conference on Software Engineering Research, Management and Applications (SERA2007), to be held on 20-22 August 2007, in Busan, Korea [Accepted].

12. Deepti Malhotra and Rinkle Aggarwal, "Performance Analysis of Fault Tolerant Irregular MINs", pp.81-87 at National Conference on Challenges and Opportunities in Information Technology (COIT 2007), held on March 23, 2007, in MandiGobindgarh (Punjab), India [Published& Presented].

13. Reliability Calculation of fault-tolerant double tree network (FDOT)', Presented in National Conference on Emerging Engineering Perspectives & Practices (ITEEPP'07) to be held on April 6-7,2007 in Thapar University Patiala, Punjab. [Published& Presented].

## Conference / Workshops/Training Organized:

- Organized One day Industrial visit of students of Govt High Secondary School Uttar Behani to Central University of Jammu on #rd February 2020.
- Organized One week Faculty Development Programme(FDP) on the topic"Artificial Intelligence" from 18—11-2019 to 22-11-2019 sponsored by AICTE training and learning academy(ATAL).

## Creation of ICT Mediated Teaching Learning Pedagogy and Content:



## Conference/Workshops/Training attended as Faculty Member:

1. Attended 5 days National Webinar on : Development of e-content avoiding Plagiarism"(FDP) organized at Government College for Women , Parade Ground Jammu from 24th-28th June 2020.

2. Attended 5 days AICTE training and learning academy(ATAL) Faculty Development Programme(FDP) on the topic " Internet of Things (IoT)Sponsored by ATAL, All India Council for Technical Education, New Delhi, India organized by the Department of Computer Science & IT, Central University of Jammu, J&K Held during October 14-18, 2019.

3. Participated in the three weeks faculty Development Programme on "Entrepreneurship Development"organized by University Business Incubation Centre (UBIC) in collaboration with Faculty Induction Development Cell, Central University of Jammu, from 20th May — 10th June 2019. The programme was sponsored by Entrepreneurship Development Institute of India (EDI), Gandhinagar, Gujarat under DST-NIMAT Project.

4. Attended the two days IInd International Conference on "Recent Innovation in Computing" in the Central University of Jammu on 8th- 9th March, 2019.

5. Attended one week workshop/Training on "eSuraksha" A practical Approach on Network & Web Application Security"organized by Department of Computer Science & IT(In Collaboration with C-DAC , Mohali), Central University of Jammu, in the month of December 10 to 14, 2018.

6. Attended NPTEL Awareness Workshop conducted by Indian Institute of Technology Kanpur, at Central University of Jammu on 3rd December, 2018.

7. Participated in the faculty Development Programme on "Data Analytics and Data Science" jointly organized by Electronics & ICT Academy, IIT Roorkee and University of Jammu at University of Jammu, Baba Saheb Ambedkar Road, Jammu Tawi(J&K) from 10 Sept-15Sept, 2018.

8. Attended the two days first International Conference on "Recent Innovation in Computing" in the Central University of Jammu on 5th -6th March, 2018.

9. Attended three weeks refresher course conducted by HRDC University of Jammu from 27-11-2017 to 18-12-2017.

10. Attended one week workshop on "Recent Trends in Computer Technology" conducted by Department of Computer Science & IT, Central University of Jammu, in the month of October 21 -28, 2016.

11. Attended three weeks orientation course conducted by HRDC University of Jammu from 17-06-2014 to 14-07-2014.

**Invited Lectures/Resource Persons:**

- Chairs the Technical Session in the Third International Conference on "Recent Innovations in Computing (ICRIC-2020")" on 5th June, 2020 in the Central University of Jammu.
- Participated as Resource Person in the Two day National Seminar on "Assessment and Evaluation: Recent Trends and Challenges" from February 05 to February 06, 2020 organized by School of Education in the Central University of Jammu.
- Chairs the Technical Session in the IInd International Conference on "Recent Innovation in Computing" on 9th March, 2019 in the Central University of Jammu.
- Session Chair, 2018 International Conference on Recent Innovations in Computing, Central University of Jammu, March 05-06, 2018.
- Invited Speaker in the Two day National Conference on "Emerging Trends in Advanced Computing and Information Technology" (ETACIT-2K18) on 24th February, 2018 in Kathua Campus, University of Jammu.
- Chairs the Technical Session of the CSE& IT Deptt in the 5th National Conference
- and Exhibition (NCEEITET) at GCET, Jammu on 20th Feb 2018.

**Research Projects (Major Grants/Research Collaboration):**

As Co-PI
**Title of Project**:Development of text and speech corpora for regional languages.
**Sponsoring agency**:DRDO,New Delhi

**Awards and Distinctions:**

**Association with Professional Bodies:**

- Members of the Institution of Engineers( India) with Membership No: M-1572576.
- Life Time Member of All India Science Congress with Membership No: L23958

**Other Activities:**