

**Dr. Jayoti Bansal**  
**Professor**  
**Department of Computer Science & Engineering**  
**Baba Farid college of Engineering & Technology**  
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### Personal Information

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Gender: Female

Marital Status: Married

Father's Name: Sh. Milakh Raj

Mother's Name: Smt. Lajwanti

Home Address: House No.2017, Near Dr. Mohan Lal Garg Nursing Home The Mall, Bathinda, Punjab - 151001

### Roles and Responsibilities Handled:

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1. Coordinating Academic/ Research /T&P/ Admissions /NAAC Activities as Principal.
2. Working for increasing employability of Students through establishment of School of skill development, campus Product development division & school of Entrepreneurship.
3. Setup Idea Lab from AICTE in the Institution as a Chief mentor.
4. Member of Alumni Association of BFCET.
5. Setup various CoE's in collaboration with FESTO, Intel India, Edgate Technology, Infosys, Fuji Electric Schneider Electric & many more.
6. Convened NAAC as Principal & Achieved NAAC A+ grade during year 2024.
7. Signed MOU's with Universities of national repute like AIIMS Bathinda, Central University of Punjab Bathinda & I.I.T. Ropar.

### Educational/Professional Qualifications

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	Name of the course	Name of the Board/ University	Month & Year passed	Division	% of Marks
10 Class/ equivalent	Matric	H.S.E.B.	1994	1st	76.83
10+2 /equivalent	Diploma	State Board of Tech. Education	1998	1st	75.4
Bachelor's degree	B.Tech.	K.U.K.	2001	1st	69.3
Master's degree	M.Tech.	AAI-DU	2005	1st	79
Ph.D.	Ph.D.	PTU	2018		

## Work Experience

Designation	Scale of pay	Name & address of employers	Period of Experience		
			From date	To date	No. of years
Lecturer	8000-275-13500	G.G.S.C.E.T.,T. Sabo	20 <sup>th</sup> July, 2001	30 <sup>th</sup> June 2003	02
Sr. Lect & Incharge	10000-325-15200	G.G.S.C.E.T.,T. Sabo	1 <sup>st</sup> July 2003	30 <sup>th</sup> June 2008	05
Assistant Prof. & HOD	12000-420-18300	G.G.S.C.E.T.,T. Sabo	1 <sup>st</sup> July 2008	30 <sup>th</sup> June 2010	02
Assistant Prof. & HOD	15600-8000-39100	G.R.D.I.T., Lehra Bega	1 <sup>st</sup> July 2010	30 <sup>th</sup> June 2011	01
Associate Prof. & Dean Academics	37400-9000-67000	B.F.C.E.T. Bathinda	1 <sup>st</sup> July 2011	31 <sup>st</sup> July 2019	9
Professor & Vice Principal	37400-9000-67000	B.F.C.E.T. Bathinda	1 <sup>st</sup> August 2019	22 <sup>nd</sup> Feb, 2021	1.7
Principal	37400-9000-67000	B.F.C.E.T. Bathinda	23 <sup>rd</sup> Feb 2021	Till date	4

## Awards/ Recognition

1. Awarded for best Placements & best results in the region by MRSPTU, Bathinda
2. Awarded for Global Femina Excellence Awards 2022 for Outstanding Contribution in Promoting Leadership & Management.

## Funded Projects/ Applied

1. Received a Research grant for funding of Rs. 20 Lakhs from CSIR for a Project idea entitled "Automated attention deficit hyperactivity disorder (ADHD) diagnosis and monitoring system" during year 2023.
2. AI-powered digital platform integrated with IKS-based practices for personalized wellness of faculty and students at workplaces to DST- Science and Heritage Research Initiative SHRI about 37+ lakhs
3. EEG-Integrated AI-Enabled Mobile Platform for Psychiatrist-Assisted Diagnosis of Depressive Disorders to AICTE- Research Promotion Scheme about 24+ Lakhs

## Technical/Program/Advisory Committee

1. Member Executive Committee, International Conference on Information and Mathematical Sciences, IMS-13, October, 24<sup>th</sup> 26<sup>th</sup>, 2013 held at Baba Farid College of Engineering & Technology, Bathinda.
2. Member, Local Organising Committee, International Conference on "Advancements and Futuristic Trends in Mechanical and Materials Engineering AFTMME-16 under the aegis of Society of Materials and Mechanical Engineering (SOMME), February 25<sup>th</sup>-27<sup>th</sup>, 2016 held at Baba Farid College of Engineering & Technology, Bathinda.
3. Member, General Chair, International Conference on Intelligent Machines, ICIM'19 in collaboration with Springer, March, 15<sup>th</sup>-16<sup>th</sup>, 2019 held at Baba Farid College of Engineering & Technology, Bathinda.
4. Convenor, one week sponsored AICTE-ISTE Induction/Refresher Faculty

Development Programme on “Outcome Based Education Teaching Learning Skills in Digital Age” July, 9<sup>th</sup> -14<sup>th</sup> 2020 held at Baba Farid College of Engineering & Technology, Bathinda.

5. Convenor, One month Industrial Internship Program in collaboration with NITK-STEP & Pantech e Learning on IOT with machine learning 5<sup>th</sup> November, 2020-5<sup>th</sup> December, 2020 held at Baba Farid College of Engineering & Technology, Bathinda.
6. Member, Organising Committee, one week sponsored AICTE-ISTE Faculty Development Programme on “Recent Developments in AIR robotics” December, 7<sup>th</sup> - 12<sup>th</sup> 2020 held at Baba Farid College of Engineering & Technology, Bathinda.
7. Convenor, International Conference on “Emerging Technologies for Computing, Communication and Smart Cities(ETCCS-2021)”in collaboration with Springer held in August, 21<sup>st</sup>-22<sup>nd</sup>, 2021 held at Baba Farid College of Engineering & Technology, Bathinda
8. Convenor, International Conference on “Computing, Communication and Security (ICCS 2023)” in collaboration with Central University of Punjab, Bathinda and MRSPTU, Bathinda held March, 3<sup>rd</sup> and 4<sup>th</sup> held at Baba Farid College of Engineering & Technology, Bathinda

### **Patents Published/ Granted**

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1. Monitoring and Movement Detection using Image Subtraction (Granted by Australian Innovation Patent Office on 7<sup>th</sup> July 2021). (Patent no. 2021103120)
2. Autonomous Multipurpose Agro turtle (Published by Indian Patent Office on 27<sup>th</sup> September, 2021). (Patent no. 202111043891)
3. Ultrasonic Sensor System using Arduino and Methods there of (Published by Indian Patent Office December 2021). (Patent no. 202111025119)
4. A System Of Connecting Two Lans With Router And Methods Thereof”.(Published by Indian Patent Office December 2021). (Patent no. 202111025118)
5. A model to identify Bus Route information using Automated Chat-bot (Granted by Australian Innovation Patent Office on 3<sup>rd</sup> November 2021). (Patent no. 2021105734)
6. Monitoring and movement detection using image subtraction (07 July 2021) (Patent no. 2021103120)
7. A Method Of Pesticide Residues/Chemicals Cleaning From Fruits And Vegetables (Published by Indian Patent Office 6<sup>th</sup> May 2022). (Patent no. 202211021743)
8. Shoulder, Hand And Head Supported Brick Picker (Published by EF Office 23<sup>rd</sup> Sep 2022, (Patent no. 202211053534)
9. An Unmanned Aerial Vehicle (Uav/Drones) Detection System For Border Area Security & Surveillance (8<sup>th</sup> July, 2023) (Patent no. 202311046002)
10. Wi-fi Extending system and Methods Thereof (23<sup>rd</sup> Jan 2023) (Patent no. 202311004425)

### **Research, Publications and Academic Contributions**

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1. Paper title “**Construction & Maintenance of Volunteer Groups in Desktop Grid Environment**” published in Journal of Advance Research in Computer Engineering: An International Journal" Vol. 3 No. 1 March, 2009 issue of the journal.
2. Paper title “**The Work Queue with Replication - Fault Tolerant Scheduler with timeout (WQR-FTT) for Bag-of-Tasks Grid applications**” published in International Journal of Intelligent Information Processing" Vol. 3 No. 1 March 2009 issue of the journal.
3. Paper Title “**Information –Aware scheduling strategies for desktop grid environment**” published in **International Journal of computer science and Information Technologies** in July 2011, Vol. 1, Issue 5.
4. Paper Title “A Survey and Taxonomy of scheduling algorithms in Desktop Grid” published in **International Journal of computer science Engineering and Technology** in March 2012, Vol 2, Issue 3,963-967.
5. Jyoti Bansal, Dr. Shaveta Rani, Dr. Paramjit Singh, “**The Work Queue with Dynamic Replication-Fault Tolerant Scheduler in Desktop Grid Environment**” published in

**International Journal of Computers & Technology** Vol. 11, No. 4, ISSN:2277-3061,pages 2446-2451,Oct. 2013,.

6. Jyoti Bansal, Dr. Shaveta Rani, Dr. Paramjit Singh, “**A Fault Tolerant Scheduler with Dynamic Replication in Desktop Grid Environment**” published in **International Journal of Emerging Trends & Technology in Computer Science** Vol. 3, issue 1, ISSN: 2278-6856, Feb. 2014.
7. Paper Title “**Performance Comparison of Three Batch-Mode Scheduling Heuristics**” published in International Journal of Computer Applications) (0975 – 8887) Volume126 – No.8, September 2015 (Indexed by Google Scholar)
8. Jyoti Bansal , Vishu Narula , Dr. Shaveta , Dr. Paramjit Singh paper title “**An Efficient Batch-Mode Scheduling Heuristic Based on Load Balancing**” published in **International Journal of Engineering and Technology(IJET)**,p-ISSN:2319-8613,Vol 7 No 6 Dec2015-Jan 2016. (Scopus Indexed)
9. Jyoti Bansal , Dr. Shaveta Rani , Dr. Paramjit Singh Paper Title “**A Novel Heuristic for Scheduling of Independent jobs on Grid Resources**” published in **International Journal of Engineering and Technology (IJET)**,e-ISSN:0975-4024,Vol7,No6,Dec. 2016, (Scopus Indexed)
10. Dr. Jyoti Bansal, Dr. Geeta Rani Paper Title “**An Adaptive Fault Tolerant Scheduling System for Desktop Grid**” published in EAI Endorsed Transactions on Scalable Information Systems (EAI), **ISSN: 2032-9407**, Volume 6 | Issue 21, 03 2019 - 06 2019 (Indexed by ESCI and Web of Science)
11. Paper Title “**A Hybrid Batch Mode Fault Tolerance Strategy in Desktop Grid**” published in International Journal of Natural Computing Research (IJNCR), Vol 9, Issue 2, Jan 2020 (Indexed by ACM and Google Scholar)
12. Jayoti Bansal, Gaurav Gangwar, Mohammad Aljaidi, Ali Alkoradees, and Gagandeep Singh. 2025. "EEG-Based ADHD Classification Using Autoencoder Feature Extraction and ResNet with Double Augmented Attention Mechanism" *Brain Sciences* 15, no. 1: 95.
13. Jayoti Bansal, Gaurav Gangwar, Gagandeep Singh, Geeta Rani. 2025. “EEG-Based ADHD Diagnosis Using Autoencoder and Reptile Search Algorithm Integrated with Machine Learning” *Clinical EEG and Neuroscience* (**Accepted**)

### **List of Book Chapters**

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1. Gursewak Singh, Jayoti Bansal, Amandeep Kaur, Hasita Rani, Mohammad Aljaidi “AI-Driven Approaches for Depression Detection and Monitoring: Current Trends, Challenges, and Future Directions” AI, Big Data and Healthcare: Data-Driven Applications2025.
2. Jayoti Bansal, Gursewak Singh, Hasita Rani “The Role of Machine Learning Methods and Wearable Devices in Early Detection of Parkinson’s Disease Diagnostics: A 2020-2024 Review” AI, Big Data and Healthcare: Data-Driven Applications 2025.

### **List of Research Paper in International Conference**

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1. Paper title “**A comprehensive study on channel assignment schemes for cellular mobile systems**” published in International Conference on Wireless Networks and Embedded Systems in Chitkara Institute of Engineering &Technology Rajpura, Punjab- 140401.

### **Full papers in Conference Proceedings**

1. Paper title “**ADHOC Networks : Challenge And opportunities**” published in National Conference Innovation-2007 at Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, Punjab, INDIA held on 6-7 April 2007.
2. Paper Title “**Robotics and Real Time Applications**” published in National Conference on Information Technology: ALCHEMY TRANSFORMING INDIA at **Bhai Maha Singh college of Engg. Muktsar** held on 29-30 Nov 2007.
3. Paper title “**Distributed Computing & The Emerging Grid**” published in National Conference on information technology 2008 at SAS Institute of Information

Technology & Research Mohali held on 28-29 Feb 2008.

4. Paper title **“Overview of Grid computing** “published in National Conference on Advancements in Computer Engineering 2008 at Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, Punjab, INDIA held on 3-4 April 2008.

#### **Conferences/Seminars/workshops attended**

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1. Attended Faculty Development Programme on Introduction to MATLAB & its Applications in Engineering from 9<sup>th</sup> January-13<sup>th</sup> January 2012 held at MIMIT, Malout.
2. Attended Faculty Development Programme on CLOUD COMPUTING from 4<sup>th</sup> June-8<sup>th</sup> June 2012 held at MIMIT, Malout.
3. Attended Faculty Development Programme on **“Induction Programme through ICT”** from 10<sup>th</sup> June-14<sup>th</sup> June 2013 organized by NITTR, Chandigarh held at BFCET, Bathinda.
4. Attended National Workshop on **“National Programme on Technology Enhanced Learning (NPTEL) Awareness”** from 7<sup>th</sup> Feb-8<sup>th</sup> Feb, 2014 jointly organized by JCDMCET Sirsa & IIT Madras.
5. Attended AICTE recognized Short term course on **“Instructional Delivery through ICT”** from 19<sup>th</sup> May-23<sup>rd</sup> May, 2014 organized by NITTTR, Chandigarh held at BFCET, Bathinda.
6. Attended AICTE recognized Short term course on **“Open Source Technologies through ICT”** from 21<sup>st</sup> July-25<sup>th</sup> July 2014 organized by NITTTR, Chandigarh held at BFCET, Bathinda.
7. Attended AICTE-ISTE sponsored Induction/Refresher Programme on Outcome based Education–Teaching learning skills in Digital Age from 16<sup>th</sup> July- 21<sup>st</sup> July 2016 held at BFCET, Bathinda.

#### **Invited/Contributory Talks**

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1. Invited as a resource person to deliver and invited talk on **“AI Agriculture” in 2nd International Conference on Food Security, Nutrition & Sustainable Agriculture – Emerging Technologies ICFNSA-2019**, February 14-16, 2019 held at Baba Farid College Bathinda
2. Invited as a resource person to deliver a guest lecture on **“Career Guidance and Future Perspective in Computer Sciences”** held at Baba Farid College Bathinda on 22<sup>nd</sup> February 2019.
3. Invited as a resource person to deliver a guest lecture on **“Role and Need of MOOC (Massive Open Online Courses)”** held at Baba Farid College, on 22<sup>nd</sup> October, 2019.
4. Invited as a resource person to deliver and invited talk on talk on **“ Future Internet Technology and Trends” in three days International Conference on Computational Techniques and Intelligent Machines (ICCTIM-2020)”** Nov 26<sup>th</sup> - 28<sup>th</sup>, 2020

#### **Session Chair**

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1. Attended as a Session Chair International Conference on **Information and Mathematical Sciences, IMS-13**, October 24<sup>th</sup>-26<sup>th</sup> Oct, 2013 held at Baba Farid College of Engineering & Technology, Bathinda
2. Attended as a Session Chair International Conference on **“Advancements and Futuristic Trends in Mechanical and Materials Engineering AFTMME-16”** under the aegis of Society of Materials and Mechanical Engineering, SOMME, February 25<sup>th</sup> - 27<sup>th</sup>, 2016 held at Baba Farid College of Engineering & Technology, Bathinda.
3. Attended as a Session Chair 2nd International Conference on **Food Security, Nutrition & Sustainable Agriculture – Emerging Technologies, ICFNSA-2019**, February 14<sup>th</sup> - 16<sup>th</sup>, 2019 held at Baba Farid College, Bathinda.
4. Attended as a Session Chair International Conference on **Computational Techniques and Intelligent Machines, ICCTIM-2020**, November 26<sup>th</sup>-28<sup>th</sup>, 2020 held at Baba

Farid College, Bathinda.