BABA FARID COLLEGE OF ENGINEERING & TECHNOLOG

International Conference on Intelligent Machines (ICIM'19)

15th & 16th March 2019









Council of Scientific & Industrial Research

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ABOUT BFGI

Baba Farid Group of institutions is managed by Baba Farid Vidyak Society founded in 1993 under the encouraging patronage of a prominent educationist of Malwa Region of Punjab with an aim to provide quality education to young minds and to prepare them to face the competitive world. The lush green campus spread over 70 acres. Baba Farid Group of Institutions having more than 10000 students in 60+ Under Graduate & Post Graduate courses.

The infrastructure is equipped with Air-conditioned classrooms, Conference room, Centrally Air conditioned Library, Seminar hall and Computer labs, etc. The institute has separate Air-conditioned hostels for boys and girls having rooms with attached wash rooms. The institute provides a well connected transport services to all the adjacent areas within the radius of 70 kms.

ABOUT BFCET

Baba Farid College of Engineering and Technology is the premier Institute of Malwa Region of the State of Punjab, established in 2008. Baba Farid College of Engineering and Technology is a prominent institute of BFGI approved by AICTE & affiliated to Maharaja Ranjit Singh Punjab Technical University, Bathinda. Step by step College of Engineering and Technology has grown and has risen like a star on academic horizon. The main strength of the institution is to impart the practical skills to the students with the support of excellent infrastructure and highly qualified faculty. The institute offers an inspiring learning environment, which transforms our bright young scholars into talented, creative and disciplined professionals. The Campus offers a host of hi-tech ultra modern facilities to ensure good quality education. The college runs under-graduate course of B.Tech. in the disciplines of Computer Science, Electronics & Communication, Civil, Mechanical & Electrical Engineering & Post-graduate course of M.Tech in CSE & course of D.VOC. in the disciplines of Automobile Servicing, Electronics Manufacturing Servicing, Refrigeration & Airconditioning.







AIM OF CONFERENCE

The International Conference On Intelligent Machines (ICIM'19) aims to achieve a multi-disciplinary balance between research advancements in theories and methods associated with Artificial Intelligence, Internet of Things (IoT) and Robotics. ICIM'19 is devoted to address the research areas that deepen the understanding of logical, cognitive, and computational foundations of the future perspectives and exploring the most essential issues and innovations in Applied AI, IoT and Robotics in three simultaneous tracks.

The prime objective of the conference is to bring together the scholars, scientists and industrialists from all across the world to a common platform and achieve the following:

To present the ongoing researches in different fields and hence to foster research relations between the Universities and the industry.

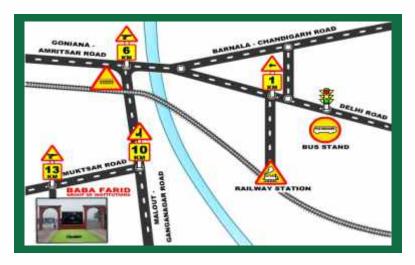
Give participants a review of the latest and upcoming trends in the next few years.

Exposing the audience to the need for more development and research for innovation.

Provide the delegates to share their new ideas and the application experiences face to face.

HOW TO REACH

Bathinda is located in the south west region i.e. cotton belt of the Punjab state. It is well connected with New Delhi which is 315 km. away by air, rail and road. The weather at Bathinda during the month of Feburuary will be pleasant with mild winter. Light warmers will do.



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CONFERENCE TRACKS

Section 4 Algorithms

- Artificial Intelligence Tools & Applications
- Section Automatic Control
- Solution Natural Language Processing
- CAD Design & Testing
 Computer Vision and Speech Understanding
- Solution Data Mining and Machine Learning Tools
- Substant Sector Sec
- Heuristic and AI Planning Strategies and Tools
- Computational Theories of Learning
- Intelligent System Architectures
- Knowledge-based Systems
- Solution Mathematical aspects of Artificial Intelligence
- Solution Intelligent Transport System
- Intelligent Waste Management

Track 1: **Artificial Intelligence**

- & Kinematics, dynamics, control and simulation of autonomous intelligent systems
- Design of robotic mechanisms
- Man-machine interface and integration
- Solution Robotics-related computer hardware, software, and architectures
- Vision and other non-contact sensory systems
- Active sensory processing and control
- Solution Machine learning and artificial intelligence for robotics
- ✤ Medical and Assistive Robotics

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- ✤ Bio-mimetic and Bio-inspired Robotic Systems
- Navigation of Unmanned vehicles ground, aerial, underwater

- Vertical Oriented IoT Applications
- Somputer and Devices Technologies for IoT
- Connectivity for IoT Application and Services Intelligence Systems

Track 2:

Robotics

- Seographic Information Systems
- Intelligent Transportation Industrial IoT for digital transformation in India
- Storage and Data Management for IoT
- Bridging the skill gap for next digital revolution IoT and Human Interface
- IoT's Impact on Automotive and Mobility
- Smart Cities and IoT
- Academic Research in the era of Education 4.0
- School Modern Network and Multimedia Technologies/Adhoc Networks/Wireless Sensor Networks
- ♦ Fog Computing

Track 3: **Internet of Things (IoT)**







Valentina E. Balas University of Arad, Romania.

OUR KEYNOTE SPEAKERS

Valentina E. Balas is currently Full Professor at "Aurel Vlaicu" University of Arad, Romania. She is author of more than 300 research papers. Her research interests are in Intelligent Systems, Fuzzy Control, Soft Computing. She is Editor-in Chief to International Journal of Advanced Intelligence Paradigms (IJAIP) and to IJCSE. She is member of EUSFLAT, ACM and a SM IEEE, member in TC – EC and TC-FS (IEEE CIS), TCSC (IEEE SMCS), Joint Secretary FIM.



Narendra S. Chaudhari Indian Institute of Technology, Indore

Narendra S. Chaudhari is currently with Indian Institute of Technology, Indore since Aug 2009 as a Professor of Computer Science and Engineering. He was Director of Visvesvaraya National Institute of Technology (VNIT) Nagpur (M.S.) since June 2013 till June 2018 (five year term). He was Dean - Research and Development (Dean - R&D), IIT Indore. Since 2001 to July 2009, he was with the School of Computer Engineering, Nanyang Technological University (NTU), Singapore. He had also worked with M.Sc. DRDO Program, Ministry of Defense (Govt. of India) at Devi Ahilya University, Indore.



Jude Hemanth Karunya University, Coimbatore, India

D. Jude Hemanth received his B.E degree in ECE from Bharathiar University in 2002, M.E degree in communication systems from Anna University in 2006 and Ph.D. from Karunya University in 2013. His research areas include Computational Intelligence and Image processing. He has authored more than 100 research papers in reputed International Journals. He has authored 1 book with (VDM-Verlag, Germany) and 11 edited books with reputed publishers such as Springer and Inderscience. He has been serving as Associate editor of various International Journals with Publishers such as IEEE, Springer (Sensing and Imaging), Inderscience (IJAIP, IJICT, IJCVR, IJBET), IOS Press etc.



Praveen Kumar Khosla, a senior scientist from the DRDO, has been appointed as Executive Director of the Centre for Development of Advanced Computing (C-DAC), Mohali. Prior to this, he was Associate Director at the DRDO's Terminal Ballistics Research Laboratory here. He has an experience of over 30 years in the DRDO and his achievements include the Scientist of the Year Award.

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Praveen Kumar Khosla Executive Director, C-DAC, Mohali





- 1 ICIM-010 Real Time Sentimental Analysis of Twitter using R language and Big Data tool RHIPE. Shaganpreet, Chinu, Sunny
- 2 ICIM-012, A Novel Method of Data Partitioning Using Genetic Algorithm Work Load Driven Approach Utilizing Machine Learning. Kiranjit, Vijay
- 3 ICIM-013, Comparison of Textile Antenna based on different fabrics for wearable applications. Rashwinder Singh
- 4 ICIM-014, Automatic generation control based on different intelligent controllers of multi-area organized power system in deregulated environment. Abhi Garg, Amandeep Singh Ghatora, Nadhim Garg
- 5 ICIM-015, XBee and Node MCU based secured network for Health Sensor monitoring. Dr. Praveen Kumar
- 6 ICIM-016, Dynamic Modeling and Decision System for Smart Bin in Cities for Waste Management. Dr. Praveen Malik
- ICIM-019, Defending against DDOS attacks in RPL using Subjective Logic Based Trust Approach for IoT.
 Vishu Sharma, Shaveta Rani, Paramjeet Singh
- 8 ICIM-021, Air Quality Monitoring and Management using Raspberry Pi and cloud server. Pradumn Kumar, Rajesh Singh, Anita Gehlot, Mamta Mittal
- 9 ICIM-022, Object Detection using Peak Extent and Shape based Features. Shalu Gupta, Jayanta Yumnam Singh
- 10 ICIM-023, Impact of Features on Activity Recognition via Smart Phone using Random Selection Algorithm. Sunita Kumari Chaurasia, S R N Reddy
- 11 ICIM-024, Fraud Detection in E-commerce Websites using Randomized Algorithm in R and Spark.R. Eesha Goel
- 12 ICIM-027, Decorative Learning Based Decorative Text Detection. Sultana Kadri, Amandeep Kaur, Pooja
- 13 ICIM-028, Intelligent 5G Network: Challenges and Realization Insights.
 Dr Upinder Kaur, Harleen Kaur







- 14 ICIM-030, Significant Research in Antennas for Future Mobile Communication Systems. Varun Marwaha, Hardeep Singh Saini, Dinesh Arora
- 15 ICIM-031, Inconsistent Cluster Analysis with Disease Feature Enhancement (ICADEF) for American Cotton Leaf Disease Recognition.
 Kapil Prashar, Dr. Rajneesh Talwar, Dr. Chander Kant, Dr.Pushpinder Pal Singh Pannu
- ICIM-032, Minimization of SLA Violation using DAG with Job Scheduling Algorithm in Cloud Computing Environment.
 Priya Bajarh, Pooja Nagpal
- 17 ICIM-034, A Novel Approach for Dynamic Information Integration. Vikash Kumar Garg, Ashish Oberoi, Manish Arora
- 18 ICIM-036, Fuzzy Logic techniques for Interpreting and Evaluating Pedagogy of Teacher Behavior and Capability to Transform Knowledge into Practice. Jagmohan Mago, Neeru Mago
- 19 ICIM-038, Development of Plasma Nitriding on AISI H11 Steel and Its Characterization. Vipan Bansal, Sunpreet Singh Grewal, Bhupinder Singh
- 20 ICIM-039, Discovered facts related to Business gain forecasting A linear dependency, exponential growth, moving average, neuro-associator and compound Poisson process perspective. **Prasun Chakrabarti, Biswajit Satpathy, Siddhant Bane, Narendra S Chaudhuri, Biswa Nath Datta**
- 21 ICIM-041, Multifarious prospectus of using databases in IoT while being energy efficient. Ramanpreet Kaur, Rinki Gupta, Jagmeet Singh
- 22 ICIM-042, Behavioural Biometric Authentication and Identification using Signature Verification: A Survey. Shalini Dhiman, Munish Sabharwal, Sandeep Kang, Lalit Garg
- 23 ICIM-043, Method to minimize sum of radii for 2- clustering problem. Shubham, Narendra Singh Chaudhari
- 24 ICIM-044, Safeguarding Location Privacy in Internet of Things. Jashanpreet Kaur, Dr. Jyotsna Sengupta
- ICIM-045, Power Automation in a Classroom.
 Khushi Khanchandani, Bhavya Shah, Kavya Purushothaman, Panil Bhavsar
- 26 ICIM-046, HEACO: Heterogeneous Energy Efficient Algorithm for Computation Offloading in IOT devices. Pravneet Kaur, Gagandeep Batra







- 27 ICIM-048, An Enhancement in Road Scenes Captured by Intelligent Transportation Systems. Charandeep Singh Bedi, Kulwinder Kaur
- 28 ICIM-052, Survey of Multilayer-Graphene Nanoribbons (ML-GNR). Farhana Khurshid, Amandeep Sharma
- 29 ICIM-053, Quantum Dot Cellular Automata: An Introduction. Mehak Ishrat, Amandeep Sharma
- 30 ICIM-054, Use of Discovery by Classifier using Electronic Nose System: A Survey. Manjunath Managuli, Dr. Abhay Deshpande
- 31 ICIM-057, Passive Image Forgery Classification and Geometrical Attack Localization on Big Data using Machine Learning.
 Abhishek Thakur, Neeru Jindal
- 32 ICIM-060, Amazon Rating Analysis and Prediction. Rahul Verma, Divya Ameta, Hari Singh
- 33 ICIM-061, Evaluating Robustness for Intensity Based Image Registration Measures Using Mutual Information and Normalized Mutual Information.
 Navdeep Kanwal, Shweta Jain, Paramjeet kaur
- 34 ICIM-067, Development of Information Communication Systems and Some Social Issues. Balwinder Brar
- 35 ICIM-068, Energy Harvesting Implementation for Wireless Sensor Networks. Jaspreet Kaur, Silki Baghla
- 36 ICIM-070, Comparative Evaluation of Free/Open Source and Proprietary Software Using Survey of Indian Users.
 Sushil Kumar, Rajiv Mahajan, Sumesh Sood
 - Submi Luma, Rajty Manajan, Sumon Soou
- 37 ICIM-071, Text Mining for Phishing E-mail Detection.
 Raj Kumar Chopra, Sachin Chopra, Jatin Chopra
- 38 ICIM-072, An Efficient Image Classification Technique for Weather Degraded Fruit Images. Harmandeep Singh, Baljit Singh Khehra
- 39 ICIM-074, Review of Spectrum Handover Schemes in Cognitive Radio Networks. Meha Bansal, Roopali Garg







- 40 ICIM-075, Data Hiding Using Steganography. Prinka Bansal, Sahil Charaya, Sunny Kumar
- 41 ICIM-078, The feasibility of EM wave underwater wireless communication network in shallow pure water medium at frequency band 0.5GHz4.5GHz. Gursewak Singh, Mahendra Kumar
- 42 ICIM-079, A novel framework for camera-based eye gaze estimation. Nandini Modi, Jaiteg Singh
- 43 ICIM-081, A New Contrast Based Degraded Document Image Binarization. Usha Rani, Dr. Amandeep Kaur, Dr. Gurpreet Joshan
- 44 ICIM-083, Crosstalk Reduction in C+L Band Erbium Doped Fiber Amplifier by Incorporating Optimal Parameters.
 Navjot Singh, Dr. Mahendra Kumar, Ashu Verma
- 45 ICIM-084, Web-Logo extraction and reverse image Lookup for Phishing Website Detection. Sachin Chopra, Raj Kumar Chopra
- 46 ICIM-085, A Review of the Retinal Blood Vessel Segmentation Techniques. Navdeep Singh, Lakhwinder Kaur, Kuldeep Singh
- 47 ICIM-086, Security Management in SDN using Fog Computing: A Survey. Manish Snehi, Abhinav Bhandari
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- 49 ICIM-091, Intelligent MIMO-OFDM-Radio over Fibre System. Jaswinder Kaur, Vishal Sharma
- 50 ICIM-092, Performance Analysis of CMOS and CNTFET based Ternary Adder. Suman Rani, Balwinder Singh
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 Pooja Rani, Silki Baghla
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- 53 ICIM-096, IOT Based Home Electronic Appliances Control System with Voice Control. Pulkit Jain, Aman Gupta, Mayank Verma, Vivek Chauhan
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Komalpreet Kaur, Yogesh Kumar







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 Rakesh Kumar, Mohindra Kumar, Surya Prakash
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- 76 ICIM-141, Graph Based Approach for Image Data Retrieval in Medical Application. Subrata Jana, Sutapa Ray, Pritom Adhikary, Tribeni Prasad Banerjee
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 Sweta Jain, Diksha Kumari, Pruthviraj Choudhari
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 Sutapa Ray, Pritom Adhikary, Subrata Jana, Tribeni Prasad Banerjee, Rajmohan De Sarkar
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 Chamkaur Singh, Neeraj Sharma, Narender Kumar
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 Neeraj Arora, Rohitash Kumar Banyal
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 Amit Sundas, Surya Narayan Panda
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 Sunil Kumar Dahiya, Amit Kumar Garg
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 Alankrita Aggarwal, Dr. Kanwalvir Singh Dhindsa, P. K. Suri
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 Mahendra Gooroochurn, David Kerr, Kaddour Bouazza-Marouf
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 Miklesh Yadav
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- 113 ICIM-204, Analysis of Soil Management Data Module of DSSAT and Implementation for Indian Punjab. Sikander Singh Cheema, Amardeep Singh Dhiman
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- 117 ICIM-213, Extended Dynamics Matrix Controller for a Pilot Plant Binary Distillation Column-An.
 Experimental Implementation
 Thirunavukkarasu Indiran, Vinayambika S Bhat, Bharath Udupa
- ICIM-214, The Energy Efficient Approach for Data Aggregation in Wireless Sensor Networks Based on Sink Mobility.
 Gagandeep Kaur, Ashu Bansal
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 Karandeep Singh, Satnam Singh







- 120 ICIM-216, Blockchain an Introduction from the industrial prospective. **Tejinderpal Singh Sarao, Kovid Sharma**
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 Ramandeep Sandhu, Kamlesh
- 125 ICIM-223, Novel Scheme for Isolation of Distributed Denial of Service Attack in VANETs. Rubleet Kaur, Yogesh Kumar, Gaurav Kumar
- 126 ICIM-224, Scheduling in Cloud Computing: A Review. Ankit Sharma
- ICIM-225, A survey on Various Routing Protocols and their performance in Underwater Wireless Sensor Networks.
 Sunil Kumar Nagpal, Dr. Vandana Jindal
- 128 ICIM-226, Comparison of Two stage and Three stage image denoising using PCA-LPG. Dinesh Kumar, Rajpreet Kaur
- 129 ICIM-227, ID Based Security Mechanism for Data Transmission in MANET'S. Gurpreet Kaur, Ramil Gupta, Navjot Singh
- 130 ICIM-232, Study on Localized Fuzzy Filter for reducing Artifact in Compressed Image. Bhavesh Borse, Manav Bansal, Anoop Monga
- 131 ICIM-287, Deep Learning for Dental Caries Detection and Digital Radiographs: A systematic Approach. Shashikant Patil, Harshada Patil, Tejas Patil
- ICIM-295, Modified BENNISH Energy Efficient Network Integrated Super Heterogenous Protocol with Heed in WSN.
 Ashu Bansal, Satnam Singh







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BFCET HIGHLIGHTS



Two Engineering NCC Cadet Students from Baba Farid College of Engineering & Technology Participated in National level Republic Day 2k19 Parade at New Delhi



University Champion of MRSPTU (Youth Festival 2018)



2nd Position in Inter College Cricket Tournament at MRSPTU, Bathinda









Ms. Shivani Singh B.Tech. (IT) 3rd Sem.

Mr. Satyam Kumar B.Tech. (EE) 3rd Sem.

B.Tech. (CE) 6th Sem.





Ms. Komalpreet kaur

B.Tech. (CE) 6th Sem.



Mr. Gagandeep Garg B.Tech. (EE) 6th Sem.

Ms. Sumit Rani B.Tech. (EE) 6th Sem.





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BFGI SCHOLARSHIP POLICY (2019-20) (In Memory of Late S. Kuldeep Singh Gill (Director Finance, BFGI)

worth ₹**3 Crore**

Category	Percentage in 10 th	Percentage in 10+2 or UG	Scholarship
	Merit Holder	Merit Holder	100% of Academic Fee
New Admissi	on 90% Above	85% Above	100% of 1st Sem. Tuition fee
in 10+1, UG		80-84.99%	50% of 1st Sem. Tuition fee
PG classes	80-84.99%	75-79.99%	25% of 1st Sem. Tuition fee
	75-79.99%	70-74.99%	15% of 1st Sem. Tuition fee
Category	Р	Positions	Scholarship
New Admissi Based on Cult	Position holder at N	ational/Inter-University Level	100% of 1st Sem. Tuition fee
Sports Even		at State/University Level	50% of 1st Sem. Tuition fee
Category	Positions in	Entrance Test	Scholarship
New Admissi	TOP 50	0 positions	100% of 1st Sem. Tuition fee
Based on Sta		500 positions	50% of 1st Sem. Tuition fee
Level Entrance	Test	000 positions	25% of 1st Sem. Tuition fee
New Admissi		00 positions	100% of 1st Sem. Tuition fee
Based on Natio		000 positions	50% of 1st Sem. Tuition fee
Level Entrance	5001 to 10	0000 positions	25% of 1st Sem. Tuition fee
Category		-	
	Posit	ions	Scholarship
Enrolled Students	Top 3 Positions in Univers	sity Merit List	100% of Tuition fee of subsequent semester
	4 th to 10 th Positions in Unive	ersity Merit List	50% of Tuition fee of subsequent semester
	Students obtaining 85% or abov	e marks in University/Board	20% of Tuition fee of subsequent semester
	*Position holder of Game/event at Na	ational/Inter University level	Rs 10,000/- (Individual Participation), 2100/- (Each, Incase of Team
	*Position holder of Game/event a	at State/University level	Rs 5,000/- (Individual Participation), 1100/- (Each, Incase of Team)
*Incas	e of game-1st three Positions wi	ill be considered. *Incase	of event-1st two Positions will be considered.
	Category Percentage in Eligible Class		
	rereentage	e in Eligible Class	Scholarship
Category	_	e in Eligible Class	Scholarship 100% of Academic fee
	y 8	-	
Category Economicall	y 8	5% Above	100% of Academic fee 50% of Academic fee
Category Economicall Weaker*	y 8:	5% Above	100% of Academic fee
Category Economicall Weaker* CATEGORY For the children of	y 8:	5% Above	100% of Academic fee 50% of Academic fee Scholarship
Category Economicall Weaker* CATEGORY For the children of For the children of For those students	y 8: 8 Martyrs	5% Above 0-84.99%	100% of Academic fee 50% of Academic fee Scholarship 100% of Academic fee through out the course
Category Economicall Weaker* CATEGORY For the children of For the children of For those students	y Martyrs Defence personnel/Ex-Servicemen who have passed 10 th / 10+2/ UG class king admission in next higher class	5% Above 0-84.99%	100% of Academic fee 50% of Academic fee Scholarship 100% of Academic fee through out the course 50% of 1st Semester Tuition fee
Category Economicall Weaker* CATEGORY For the children of For the children of For those students from BFGI and see For the single girl c	y 82 Martyrs Defence personnel/Ex-Servicemen who have passed 10 th / 10+2/ UG class king admission in next higher class hild	5% Above 0-84.99%	100% of Academic fee 50% of Academic fee Scholarship 100% of Academic fee through out the course 50% of 1st Semester Tuition fee 50% of 1st Semester Tuition fee
Category Economicall Weaker* CATEGORY For the children of For the children of For those students from BFGI and see For the single girl cl For the children of	y 82 Martyrs Defence personnel/Ex-Servicemen who have passed 10 th / 10+2/ UG class king admission in next higher class hild	5% Above 0-84.99%	100% of Academic fee 50% of Academic fee Scholarship 100% of Academic fee through out the course 50% of 1st Semester Tuition fee 50% of 1st Semester Tuition fee 25% of Tuition fee through out the course

Note: If a student is eligible for Scholarship in more than one category, he/she can avail Scholarship only in one category



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