

Name: Dr.Ganesh Kumar Sethi

Designation: Assistant Professor in Computer Science

Specialization: Discrete Mathematics/Image Processing

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Education

MCA (UGC-NET), MSc (Maths, CSIR-NET), PhD

MCA(2003, Punjabi University, Patiala),

MSc-Mathematics (2005, HP University, Shimla)

CSIR-NET (Mathematics) 2005 National Eligibility Test (CS) (UGC-NET)-2012

Ph.D. (September, 2017, Punjabi University, Patiala)

Title of Ph. D Thesis: A Framework for Automatic Detection and Extraction of Devanagari Text from Camera Based Images.

Professional Experience:

Department of Computer Science, M.M. Modi College, Patiala, India (03 October, 2006 to till date)

Department of Computer Science, M.M. Modi College, Patiala, India (July-2004 to October 2006)

Govt Bikram College of Commerce, Patiala India (August 2003 to March 2004)

Teaching Interests:

- Data Structures
- Programming in C/C++
- Discrete Mathematics
- Statistics

Research Interest:

Digital Image Processing

Publications

1. Ganesh K Sethi , Rajesh K Bawa *A Binarization Technique for Extraction of Devanagari Text from Camera Based Images*Signal & Image Processing :An International Journal (SIPIJ) Vol.5, No.2, ISSN 0976 - 710X (Online) 2229 - 3922 (print)
<http://aircconline.com/sipij/V5N2/5214sipij03.pdf>
2. Ganesh K Sethi, Rajesh Bawa A review on binarization algorithms for camera based natural scene images Proceedings of the International Conference on Advances in Computing,

Communications and Informatics, 3 - 5 August 2012, Chennai, India, pp 873-878, ISBN 978-1-4503-1196-0, 2012

<https://doi.org/10.1145/2345396.2345537>

3. Ganesh K Sethi, Rajesh Bawa *Text Information Extraction: in Context of Indian Languages Advanced Materials Research* Vols. 433-440 (2012), pp 5012-5019 Publisher :Trans Tech Publications, Switzerland
doi:10.4028/www.scientific.net/AMR.433-440.5012
4. Ganesh K Sethi, Rajesh Bawa AKS: A Database for Detection and Extraction of Devanagari Text in Camera Based Images. *International Journal of Computer Trends and Technology (IJCTT)* Volume 39, Issue 1, pp. 32-39, 2016. (Thomson Reuters End Notes)ISSN: 2231-2803.
<http://www.ijcttjournal.org/2016/Volume39/number-1/IJCTT-V39P107.pdf>
5. **E-Governance: A Study of Services in Punjab** Cyber-Pollution: Problem and Remedy-2014 ISBN number 978-81-909755-9-9
6. **A Technique for Skew Correction and Text Localization in Natural Scene Images** *International Journal of Research in Electronics AND Computer Engineering (IJRECE)* ISSN (Online): 2348-2281ISSN (Print): 2393-9028
<http://nebula.wsimg.com/745ba95f7f1befdceb6d9f8bd8506fad?AccessKeyId=DFB1BA3CED7E7997D5B1&disposition=0&alloworigin=1>
7. Ganesh Kumar Sethi Harmohan Sharma *Writer Identification System: Facts & Fundamentals*Proceedings International Conference on Digital Transformation: A Cognitive Learning Towards Artificial Intelligence*RGNUL Patiala*06-08 September, 2019
8. Ganesh Kumar Sethi ,**Automatic Land Cover Classification Using Learning Techniques with Dynamic Features** *International Journal of Innovative Technology and Exploring Engineering (IJITEE)* 499 ISSN: 2278-3075, Volume-8 Issue-8S3, June 2019(Scopus Indexed)
<https://www.ijitee.org/wp-content/uploads/papers/v8i8s3/H11140688S319.pdf>
9. Ganesh Kumar Sethi , *Feature Based Qualitative Classification of Rice Varieties: A Review* Volume 64, Issue 2, 2020 *Journal of Scientific Research Institute of Science, Banaras Hindu University, Varanasi, India.*
[https://new.bhu.ac.in/Images/files/42\(1\).pdf](https://new.bhu.ac.in/Images/files/42(1).pdf)

Book/Book chapter

1. **Discrete Mathematics** Sharma Publications/2008 ISBN 93-81261-61-X
2. **Computer Oriented Numerical and Statistical Methods** Sharma Publications/2009 (Fully Revised 2020) ISBN
3. **C Programming and Data Structures**Sharma Publications /2018 ISBN 978-93-5181-235-7
4. **Programming Fundamentals Using C** Sharma Publications /2018 ISBN 978-93-5181-234-0
5. **Mathematical Foundations of Computer Science** Sharma Publications/2015

Conference / Seminars

A) Paper presented:

- B) Text Information Extraction: in Context of Indian Languages International Conference ICCRC-2011 at New Delhi March 21-23 2011
- C) E-Governance: A Study of Services in Punjab National Conference on Cyber Pollution-Problem and Remedy, Khalsa College, Patiala 4 April, 2014
- D) *e-Governance in Higher Education-In Context of National Scholarship Schemes in India* International Conference, MM Modi College, Patiala November 7-8, 2014
- E) *Globalization and its Impact on Indian Culture* International Seminar on Impact of Globalisation on Values State College of Education, Patiala 24 Feb, 2016
- F) *"E-waste: A Looming Threat"* International RGNUL March 5, 2016
- G) Automatic Land Cover Classification Using Learning Techniques with Dynamic Features International Conference on Recent Trends in Computer Applications and Information Technology MM University Ambala 20-04-2019
- H) Writer Identification System: Facts & Fundamentals International Conference on Digital Transformation: A Cognitive Learning Towards Artificial Intelligence RGNUL Patiala 06-08 September, 2019
- I) Advancements in Optical Character Recognition for Gurmukhi Script Fifth International Conference on Image Information Processing (ICIIP 2019) JAYPEE University of IT, Wahnaghat, Solan HP 15-17 November, 2019
- J) State-of-the-art in automatic rice quality grading system International Conference on intelligent communication and computational research Punjab Institute of Technology, Rajpura January 25, 2020
- K) Digital Image Processing for Smart Farming UGC Sponsored 3rd National Conference on Innovations in Bioscience and Technology (NCIBT 2020) March 7, 2020.

Ph.D Students

1. **Taruna-DETECTION OF WHEAT LEAF DISEASES USING DEEP LEARNING**(Ongoing, Regd on August 13, 2018 in DCS, Punjabi University, Patiala)
2. **Gurwinder Singh-AUTOMATIC SATELLITE IMAGE CLASSIFICATION FOR AGRICULTURE LAND COVER USING DEEP LEARNING APPROACH**(Ongoing Regd on May 21, 2019 in DCS, Punjabi University, Patiala)
3. **Sukhdeep Kaur-Development of a Writer Identification System For Handwritten Gurmukhi Script**(Ongoing Regd in July 11, 2019 in DCS, Punjabi University, Patiala))
4. **Komal "DEVELOPMENT OF A SYSTEM FOR RICE GRAIN VARIETY IDENTIFICATION USING MACHINE LEARNING"** (Ongoing Regd in August 26, 2019 in DCS, Punjabi University, Patiala))

Workshops and training courses

FDPs/Workshps/Orientations & Refreshers:

1. Attended one week International e-symposium on Online Modes of Teaching& Learning : A Global Prospective 25th to 29th May, 2020 by Guru Kashi University, Bhatinda
2. Attended 7 Days International FDP on Innovative Methods for Virtual Classroom Teaching: A Road to MOOCs 10th to 16thJuly, 2020 by Punjab Commerce & Management Association
3. Participated in Online AICTE Recognized FDP on Neural Network and CNN by NITTTR Chandigarh from 14th to 18th April, 2020
4. Attended Workshop on NDLI Cub held at State College of Education on 13.12.2019 sponsored by MHRD.
5. One week Faculty Development Programme on "Emerging Issues and Challenges in Higher Education" from July 17-22, 2019 at MM Modi College, Patiala.
6. Attended UGC Sponsored 7 Day FDP at Multani Mal Modi College, Patiala on "Contemporary Issues in Higher Education" from July 20-26, 2018.
7. Attended three day FDP on "Effective Use of ICT in Transforming Traditional Learning and Development of MOOCs" from 1st June to 3rd June 2018 organized by Department of Computer Science and Engineering, Thapar Institute of Engineering & Technology, Patiala.
8. Attended UGC Sponsored Refresher Course at Punjabi University, Patiala from 10-30 May, 2017 on theme Emerging Issues in Information Technology.
9. Attended UGC Sponsored 7 Day FDP at Multani Mal Modi College, Patiala on "Academic Writing: From Critical Appreciation to Publication" from Jan 9-16, 2017
10. Attended One Day Workshop on "IPR Awareness and Plagiarism Detection Tool for Indian languages" on May 13, 2016 at Punjabi Univ Patiala
11. Attended 7 Day Workshop on " Enhancing Legal Efficacy Among Teachers" from 15-21 March, 2016 at Punjabi University, Patiala
12. Attended Student Leadership Programme organised by RGNIYD on Feb 23, 2016 at MM Modi College, Patiala.
13. Attended UGC Sponsored 7 Day FDP at Multani Mal Modi College, Patiala from from July 9-15, 2015.
14. Attended One Day Workshop on "Programming the Mind" at Govt. Bikram College of Commerce, Patiala on 23.11.2014.
15. Attended UGC sponsored 15 Days FDP at Multani Mal Modi College, Patiala from July 1-July 15, 2014.
16. Attended UGC sponsored One week National Workshop on "Digital Image Processing using MATLAB" at PUP Patiala from Nov. 29-Dec 5, 2012.
17. Attended Short Term Training cum awareness Programme on NMEICT at Dr. BR AMBEDKAR NIT Jalandhar on 19 October 2012
18. Attended Refresher Course in IT from 19 December, 2011 to 07 January 2012 at ASC, University of Rajasthan, Jaipur in A grade.
19. Attended Orientation Course from 15 June, 2011 to 12 July 2011 at ASC, Punjabi University, Patiala in A grade.

20. Attended National Seminar on Emerging Challenges in Service Sector in India on October 20, 2010 at DDE, Pbi University, Patiala.
21. Attended National Seminar on Role of ICT in Distance Education on August 9, 2010 at DDE, Punjabi University, Patiala.
22. Attended National Seminar on Recent Advance and Future Trends in DIP on March 30, 2010 at DCS, Pbi University, Patiala.
23. Attended National Conference on Recent Advance and Future Trends in IT on April 9-10 2009 at DCS, Pbi University, Patiala.
24. Attended Seminar on AIDS Awareness at Multani Mal Modi Colege, Patiala on 20.02.2008.

NSS Camps:

1. . Participated in NSS camp on theme Swachh Bharat SwasthBharat at Multani Mal Modi Colege, Patiala from Jan 01-Jan 07, 2016.
2. Participated in NSS camp on theme Health, Public Sanitation & Public Hygiene at Multani Mal Modi Colege, Patiala from Dec 21-27,2014.
3. Donated Blood 6 times.