

Faculty Profile

(For booklet and website)

- **Name:** Dr. AMIT KANT PANDIT
- **Present Position Designation:** Associate Professor,
Department: Electronics and Communication Engineering
- **Email ID:** amit.pandit@smvdu.ac.in / amitkantpandit@gmail.com
- **Contact Number and Extn.:** 01991-2855355 ext 2332
- **DoB.:-** 08th July 1976
- **Qualification:** PhD, DAC, B.Tech.
- **Research Areas**
Multimedia Technology
Digital Signal Processing
VDTN
- **Professional/ Teaching/Research Employment :- Experience approx. 17 Years+**
 - ❖ Shri Mata Vaishno Devi University Katra Associate Professor and Director SECE,SMVD University Katra 22nd April 2015(AN)-Till date
 - ❖ Shri Mata Vaishno Devi University Katra, Assistant Professor In Electronics & Communication (Basic Pay:- 22390 Grade pay:-6000/7000. (07th mar07-22nd April 2015(FN))
 - ❖ Amity university, Lucknow, Lecturer In Electronics & Communication Depts. Of Institute of Engineering & Technology. (3rd Nov.06-05th Mar07,
 - ❖ Dr.BR Ambedkar Agra University, Lecturer In Electronics & Communication Depts. Of Institute of Engineering & Technology. (10th sep01-1st Nov.06)
 - ❖ Kamla Nehru Institute of Technology Sultanpur Guest Lecturer In Electronics Engg. Deptt. (14th August00-9th feb01)
 - ❖ Director, Institute of Engineering & Technology, Rohilkhand University Bareilly Guest Lecturer In Electronics Engg. Deptt. 11th feb00-26th jul00
 - ❖ Head ,MIT Moradabad Guest Lecturer in electronics dep't. (10th Aug99-10th Feb00)
 - ❖ Bharat Electronics Limited ,Kotdwara Trainee (18th may98-27th jun98)
- **Areas of Interest / Specialization:**
Multimedia Technology
Digital Signal Processing
VDTN
- **Research Supervised**
PhD 1 Awarded,1 Submitted and four in Progress
M.Tech 3 awarded and One in Progress
- ***Sponsored Research/ Consultancy Projects – one***
 - ❖ Completed Consultancy Project titled “Consumer Complaints Handling Mechanism through IT Integration” to Manas Hosting through Banyan Consulting Delhi .status completed (Rs 50000.00 as consultancy fees and all actual expenses paid by the company. Total amount Rs 100000.00).
 - ❖ One major project from UGC Design modification and analysis of effect of variable quantization on



A* Prune, KM CSP Algorithm:- for Video compression approved in 2012 of amount~ 9 lakhs ,ongoing.

➤ **Books Published:**

- ❖ Reduced complexity algorithms for Image and Video compression published by LAP Germany ISBN 978-3-8465-4627-7
- ❖ Video Compression: Novel and Efficient Block Matching Algorithms ,published by LAP Germany ISBN 978-3-659-18163-

➤ **Administrative responsibilities**

- ❖ Telecom In charge , SMVDU
- ❖ Coordinating Member SMVDU NAAC and NBA committee
- ❖ Coordinator University Central Inspection Committee
- ❖ SOPC, JIO Communication Lab at SMVDU
- ❖ SOPC, NPTEL Local Chapter SMVDU
- ❖ Coopted Member, Executive Committee, IEEE Delhi Section
- ❖ Chair Newsletter Committee Executive Committee of IEEE Computer Society Chapter India Council-2013
- ❖ Joint Secretary (Conference and workshop) , Executive Committee of IEEE Computer Society Chapter India Council-2012
- ❖ Faculty Coordinator IEEE Student Chapter SMVDU
- ❖ Telecommunication In charge SMVD University
- ❖ Ex Director SECE, SMVDU
- ❖ Coordinator and member for Five IQAC committee, SMVDU
- ❖ Member Research SECE, SMVDU Selection committee
- ❖ Member SMVD University Technical Committee
- ❖ Chair and Member SECE SMVDU Board of Studies

➤ **Membership/Fellowship and position of responsibility in Professional Societies:**

- ❖ Senior IEEE Member
- ❖ MIR Labs member
- ❖ IEEE SMVDU Student Chapter Branch Counselor
- ❖ Board Member (Non -Executive) of “Walnut Technologies, Bangalore”
- ❖ Member of Editorial board of International journal of Engineering and Technology, Singapore (ISSN-1793-8244)

➤ **Short-term/ Refresher Courses /International Conference /lectures**

Conducted

- ❖ Organizing Eight FDP from 2017 till 2019 March
- ❖ Organized IEEE International Conference ICMIRA 2013 from 21-23rd Dec 2013
- ❖ Organizing One Week Staff development program for Administrative staff at SMVDU 22-26th June 2013
- ❖ Organizing One Week Orientation program for Faculty at SMVDU 22-26th June 2013

- ❖ Organized one-week SDPMMIL 12 Workshop Dec 23-27 ,2012.
- ❖ Organized three-day Conference NCMIRA 12 from 21-23rd Dec 2012
- ❖ Organized One Week Staff development program for Administrative staff at SMVDU Jan 2012.
- ❖ Organized Two weeks AICTE approved Staff development program , “An Introduction to MATLAB® and Matrox® Imaging Library with Emphasis on hands on Practice WMMIL’11
- ❖ Organized as convener and Local Chair IEEE International conference ,CSNT-2011 ,SMVDU
- ❖ Organized (as Coordinator) First National Biennial one week Short Term Course on “An Introduction to MATLAB® and Matrox® Imaging Library with Emphasis on hands on Practice (MMIL, 10)” ,(DEC 27 - 31, 2010) at SECE, COE, SMVDU
- ❖ Organized (as Coordinator) Second National Biennial seven day short term course 'MATLAB® Applications in Electronics, Electrical & Computers' (21stMay-28th May 2010)” , at SECE, COE, SMVDU.
- ❖ Organized (as Coordinator) first National Biennial short term course on 'MATLAB® Applications in Electronics, Electrical & Computers' (2008) , at SECE, COE, SMVDU
- ❖ Delivered lectures in the refresher course at IBS Agra
- ❖ Delivered special lecture at IIHT, Agra on Embedded System
- ❖ Delivered a special Lecture at Aryabhata college Ajmer 2012.
- ❖ Delivered a special Lecture on IT and Supply Chain at MDP at SMVDU, COM

Attended

Staff development Program Attended

- ❖ Orientation Program (special Summer School) at ASC Lucknow University from 1-22nd May 2013
- ❖ Attended Two weeks ISTE Workshop on Research Methodologies at smvdu from 25June -04th July 2012
- ❖ AICTE sponsored One week “orientation program for Technical Teacher,(OPTT-10)” at NIT Hamirpur from 28th June-2nd July 2010.
- ❖ AICTE sponsored two weeks, SDP at AIT, Delhi from 14th June-26th June 2010.
- ❖ AICTE sponsored two weeks, SDP “Applied Econometric for management research” at SMVDU Katra from 10th -23rd july09.

Conference/workshop /seminar Attended:-

- ❖ Attended 6th International Conference on Next Generation Web Services Practices (NWeSP-2010) November 23-25, 2010 - Gwalior, India (As participant and Program committee member).
- ❖ Attended International Conference on Computational Intelligence and Communication Networks (CICN 2011), 2012, Gwalior. And as Session Chair also).
- ❖ Attended International Conference on Computational Intelligence and Communication Networks (CICN 2010), 26th Nov- 28th November 2010, RGPV, Bhopal. As participant
- ❖ Attended International Conference on Computational Intelligence and Communication Networks (CICN 2010), 26th Nov- 28th November 2010, RGPV, Bhopal. As Program committee member
- ❖ Workshop attended at NCPRI PG 2008 DA-IICT Gandhinagar, 11th – 13th Jan. 2008.
- ❖ Workshop attended at TENCON 2008,. IEEE Region 10 Conference, 19-21 Nov. 2008.
- ❖ Refresher /training attended at SMVDU organized by Fairchild Inc.

➤ **Publications:**

No. of reviewed publications in Journal.

15

- ❖ Amit Kant Pandit et al ,” Analysis of Multiple Hidden Layer vs. Accuracy in Performance using Back Propagation Neural Network, Vol 10(4), DOI: 10.17485/ijst/2017/v10i4/110899, Indian Journal of Science and Technology January 2017,Thomson Reuter index.
- ❖ Amit Kant Pandit ,”Novel Block Matching Reduced Complexity Motion Estimation and Compensation Algorithm for Mobile Domain: DBTSSDS” Indian Journal of Science and Technology, Vol 9(48), DOI: 10.17485/ijst/2016/v9i48/95239, December 2016,Thomson Reuter index
- ❖ Rakesh Kumar Bhujade, Amitkant Pandit and Savita Shiwani, “Improving Accuracy in Back Propagation Neural Network by Pruning Proportionality in Multiple Hidden Layers”, *Ciência e Técnica Vitivinícola Journal* (ISSN: 0254-0223), Volume 31, Issue 2, Feb 2016, PORTUGAL, Coverage: Science Citation Index Expanded (5-Year Impact Factor: 0.91 Thomson Reuter 2016).(JOURNAL 18604 IN UGCLIST)
- ❖ A. Pandit ,S verma, “A* Prune algorithm in video compression” *Ubiquitous Computing And communication Journal*, vol.3, no.5, 2008. (Cited by Two in Springer 2012) (UGC journal 47503) PP49-51
- ❖ A Pandit et.al “Trends and trade-offs in designing and performance evaluation of different on-chip Amba bus”, *Int. J. of Engg. Sci. & Mgmt. (IJESM)*, Vol. 2, Issue 1: Jan-Mar: 2012, 5-11 ISSN: 2277-5528.
- ❖ Pandit Amit et. Al, An Analysis of Effect of Proportionality among Hidden Layers in Standard Back Propagation Neural Network” *International Journal of Computer Technology and Electronics Engineering (IJCTEE)* Volume 5, Issue 4, August 2015
- ❖ Rakesh Kumar Bhujade, Amitkant Pandit and Naveen Hemrajani “Proportionality Estimation of Multi Hidden Layer Neurons In Back Propagation Neural Network Architecture”, Suresh Gyan Vihar University *International Journal of Environment, Science and Technology*, E-ISSN 2394-9570, Volume 1, Issue 1, 2015, pp.57-65.
- ❖ Rakesh Kumar Bhujade, Amitkant Pandit, “Evaluation of Multi Hidden Layer Neurons In Multiple Layers BPNN Architecture, Suresh Gyan Vihar University *International Journal of Environment, Science and Technology*, E-ISSN 2394-9570, Volume 2, Issue 2, 2015
- ❖ Stuti Asthana, Amitkant Pandit, Dinesh Goyal, “Analysis on Multiple Hidden Layer Complexity of BPNN”, (SCOPUS Indexed) *International Journal of Applied Engineering Research* ISSN 0973-4562, Volume 12, Number 14 (2017) pp. 4723-4728.
- ❖ Stuti Asthana, Amitkant Pandit, Dinesh Goyal, “Licence Number Plate Recognition System with Suitable Learning Rate: A Survey”, *MAGNT Research Report, AUSTRALIA*, (ISSN. 1444-8939) Vol.4 (1). pp. 1-5, 2017 (Indexed in Thomson Reuters "Web of Science"). DOI: 1444-8939.2017/4-1/MRR.1 (UGC LISTED AT NUMBER 62646
- ❖ Stuti Asthana, Amitkant Pandit, Dinesh Goyal, “An Analysis of Effect of Proportionality among Hidden Layers in Standard Back Propagation Neural Network”, *International Journal of Computer Technology*

and Electronics Engineering (ISO 9001:2008 Certified International Journal, ISSN 2249-6343(Online)), FLORIDA Volume 5, Issue 4, August 2015

- ❖ Stuti Asthana, Amitkant Pandit, Dinesh Goyal, “A Literature Survey on Better System Efficiency Of Handwritten Numeral Recognition”, Suresh Gyan Vihar University International Journal of Environment, Science and Technology, E-ISSN 2394-9570, Volume 3, Issue 1, Jan 2017, pp.1-5
- ❖ Stuti Asthana, Dinesh Goyal, Amitkant Pandit, “A Review of Accuracy Analysis Considering Neurons Proportionality among Hidden Layers in Back Propagation Neural Network”, International Journal of Emerging Technology and Advanced Engineering, UGC Approved list of Recommended Journal Serial Number 44256 (ISSN 2250–2459(Online), Volume 7, Issue 6, June 2017, pp 420-426.
- ❖ Amit Pandit et al “ FPGA Implementation of Switching System Using VHDL” NCMIRA 2012 SMVDU Volume 3, Special Issue 2, January 2013, ISSN 2250 – 2459 (Online) IJEATE ,pp112-115
- ❖ Amit Pandit et al “ Rho-Square Method for Fast Block Matching in Motion Estimation for Video Compression”” NCMIRA 2012 SMVDU Volume 3, Special Issue 2, January 2013, ISSN 2250 – 2459 (Online) IJEATE ,pp127-129

No. of research papers in Referred IEEE/ other International Conferences, 16

- ❖ *Amit Kant Pandit, “Design Modification and Analysis of Effect of Variable Quantization on A* Prune ,K MCSP Algorithm:- For Video Compression”* is accepted in IEEE, 9th International Conference on Computational Intelligence and Communication Networks (CICN 2017),Cyprus.
- ❖ Amit Pandit “Novel Block Matching Reduced Complexity Motion Estimation and Compensation Algorithm for Mobile Domain: DBTSSDS” 2nd International Conference on Recent Trends in Computer Science and Electronics, Malaysia Jan 2017
- ❖ *Amit K Pandit et.al. “Design of Two-Stage CMOS Operational Amplifier for Sigma-Delta ADC” IEEE CICN 2017.to be at xplre soon.*
- ❖ Nasir Nabi Hurreh, Zubair Jan, Anil Bhardwaj, Shabir Ahmad Parah, Amit Kant Pandit “Oversampled Sigma Delta ADC Decimation Filter: Design Techniques, Challenges, Tradeoffs and Optimization” Proceedings of 2015 RA ECS UIET Panjab University Chandigarh 21-22nd December 2015, IEEE Digital Library identifier still to be uploaded 978-1-4673-8253-3/15
- ❖ Rakesh Kumar Bhujade, Amitkant Pandit and Naveen Hemrajani, Stuti Asthana “A Novel Approach of Five Hidden Layer Proportionality in Back Propagation Neural Network”, Fifth International Joint Conference on Advances in Engineering and Technology, AET 2014.Kochi, India. DOI:10.3850/978-981-09-5247-1_027.
- ❖ Anju Rani,Amit K pandit “Quantum Cryptography Based Biometric Encryption” IEEE ICMIRA 2013
- ❖ Ankit Bali, Mukul Khajuria and Ghansparsh Mahajan ,Amit Kant Pandit,”Modified Rho-Square Method for very fast block matching in motion estimation for video compression” accepted for IEEE ICMIRA 2013 from 21-23rd Dec 2013 SMVDU
- ❖ Amit Pandit, Shekhar Verma, G.S. Tomar, Dheeraj Kannoujia, "Fast Motion Estimation Using Modified New Block Matching Algorithm: MTSSDS for Efficient Video Compression in Mobile Domain," ",IEEE International Conference on Computational Intelligence and Communication Networks,2011, pp.363-366, 2011 International Conference on Computational Intelligence and Communication Networks, 2011
- ❖ Amit Pandit, et.al, "Fuzzy Inference System (FIS) for the Synthesis of Rectangular Micro strip Antennas

with Thin and Thick Substrates ,IEEE International Conference on Communication Systems and Network Technologies, June 2011, pp. 253-257

- ❖ Amit Pandit, G S Tomar, S Verma , “Pruned-AZB for reduced complexity block matching in Video Compression”, *6th International Conference on Next Generation Web Services Practices (NWeSP-2010) November 23-25, 2010 - Gwalior*,
- ❖ Amit Pandit et.al , “Low-power Techniques for System On-Chip Buses”, The 11th International Conference on Wireless Networks ,ICWN'12: July 16-19, 2012, USA(excepted but not registered hence rejected)
- ❖ Amit Pandit, S Verma, “Bi Level Frame for reduced complexity in video compression”, International Conference on Computational Intelligence and Communication Networks (CICN 2010, 26th Nov-28th November 2010, RGPV, Bhopal (*proceeding published in IEEE explore*).
- ❖ Amit Pandit, S Verma, “Quad tree based Image compression”, TENCON 2008,. IEEE Region 10 Conference, 19-21 Nov. 2008, pp. 1 – 4, (*proceeding published in IEEE explore*).
- ❖ Amit Pandit, et.al “Different Arbitration Techniques for On-Chip Shared Bus Multi-Processor SoC”. IEEE International Conference on Communication Systems and Network Technology CSNT 2012,Rajkot 11-13 May 2012 (not published)
- ❖ Anurag ,Amit Pandit, G S Tomar “Design and Performance Evaluation of a NOC- Based Router Architecture for MPSoC” International Conference on Computational Intelligence and Communication Networks (CICN -2012) Mathura 3-5th nov 2012.
- ❖ Rajit ram ,Amit Pandit, G S Tomar “Ultra-Low Power Logic Device for Hearing Aid Applications” International Conference on Computational Intelligence and Communication Networks (CICN -2012) Mathura 3-5th nov 2012.
- ❖ Rajit ram ,Amit Pandit, G S Tomar “Design of Ultra-Low Power Operational Amplifier Hearing Aid Applications” International Conference on Computational Intelligence and Communication Networks (CICN -2012) Mathura 3-5th nov 2012.

b) No. of research papers in National Conferences 07

- ❖ A. Pandit et. al. “An Analysis of efficient quad tree based on frame complexity of I
- ❖ frame of video for H.264” NCPRIPG 2008 DA-IICT Gandhinagar, 11th – 13th Jan. 2008.
- ❖ Pandit et. al. “Edge based Optimized quad Tree on Frame skipping technique for mobile video Frame”, 2nd National Conference on Next Generation Computing & Information System, 14-15 feb 2009 at MIETs Jammu.
- ❖ Pandit et. al. “Frame skipping analysis of edge based pre-processed quad tree for mobile video format “ National conference on Signal Processing ‘Exceeding technological horizon’, 5-6th March 2009, MIT
- ❖ Pandit et.al.”SOP for BMW” at NCAMT 09,SMVDU.
- ❖ Amit Pandit et al “Rho-Square Method for Fast Block Matching in Motion Estimation for Video
- ❖ Compression” NCMIRA 2012 ,SMVDU
- ❖ Rakesh Kumar, AK Pnadit etal.”Analysis of Proportionality Estimation in Multi Hidden layer Neurons in BPNN Architecture” pp79-92,ISBN978-93-8437033-6, NCMIRA 2015 BPS University Sonipat Haryana

(iii) No. of research papers communicated/to be updated

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