Brief Bio Data

Amol Vasudeva is currently acting as an Assistant Professor (Senior Grade) in the Department of Computer Science & Engineering and Information Technology at Jaypee University of Information Technology (JUIT), Waknaghat, India. He had joined the Department of Computer Science & Engineering and Information Technology, JUIT Waknaghat in July 2005. In 2018, he completed his Ph.D degree in Computer Science from Himachal Pradesh Univesity, Summer Hill, Shimla, Himachal Pradesh. He received his Master of Technology (M. Tech) in Computer Science and Engineering from JUIT Waknaghat in 2009. He received his Master in Computer Applications (M.C.A.) degree from Indira Gandhi National Open University (IGNOU) in 2001. He completed his Bachelor of Science (B.Sc.) degree from Centre of Excellence, Government Degree College, Sanjauli, Shimla in 1995. Amol has over 21 years of extensive experience in academics. His academic experience is more than 16 years at JUIT Waknaghat. He has supervised one Ph. D student, three M. Tech students, and hundreds of Bachelor of Technology (B Tech) students' projects in the Department of Computer Science and Engineering and Information Technology at JUIT Waknaghat. He is currently supervising three Ph D students (one from JUIT Waknaghat and two from HP University, Shimla) in the areas of Internet of Things, FANETs, and Cyber Security. Amol is passionate about teaching. Recently, he has taught the subjects like "Statistics and Exploratory Data Analytics", "Data Structures", "Computer Graphics", "Python Programming", "Parallel Processing", "Advanced Java", and "Object-Oriented Systems & Programming". Amol's current areas of research are in the fields of security in MANETs, FANETs, WSN, and IoT. Amol was invited to serve as Session Chair for IEEE ICIIP-2021, IEEE PDGC-2020, and ICIIP-2019. He has enthusiastically participated and acted as the organizing committee member of various IEEE and other conferences. Amol is the coordinator of Board of Studies in CSE/IT Department JUIT Waknaghat. He has also acted as the coordinator of Departmental Advisory Committee in CSE/IT department. Amol has served as external examiner, evaluator, and observer for various universities. He is also a reviewer for various renowned international journals and conferences. He is presently the member of IEEE, ACM, and Computer Society of India (CSI).

I. <u>General information</u>

Name	:	AMOL VASUDEVA	
Citizenship	:	INDIAN	
E-Mail	:	amol.vasudeva@juit.ac.in	

Education Qualification:

S No	Specialization / Discipline	College/University/Institute	Year	Division
1	Ph. D (Computer Science)	Department of Computer Science, Himachal Pradesh University, Summer Hill, Shimla, Himachal Pradesh, India, Pin 171005	2018	--
2	M.B.A. (Operations Research)	IGNOU, Study Centre Shimla	2011	First
3	M. Tech (Computer Science and Engineering)	Department of Computer Science & Engineering and Information Technology, Jaypee University of Information Technology, Waknaghat,Solan, Himachal Pradesh, India.	2009	First
4	M.C.A.	IGNOU, Study Centre Shimla	2001	First
5	B. Sc. (Non-Medical)	Centre of Excellence, Government Degree College, Sanjauli, Shimla, Himachal Pradesh, India, Pin-171006	1995	Second

Other Diplomas/Certificates:

S No	Organization	From Date	To Date	Training Type
1	APTECH	1st Aug 1995	8th Sep 1996	Diploma in Information and Systems Management
2	IGNOU	1st Aug 1997	1st Dec 1997	Certificate in Computing
3	Regional Computer Centre Chandigarh	9th March 1998	6th May 1998	C Language Under Unix OS
4	Regional Computer Centre Chandigarh	16th July 1998	22nd Sep 1998	Oracle with Developer 2000
5	IIT Bombay	20th May 2019	27th May 2019	Spoken Tutorial on Python Programming

Details of JRF/NET/SLET/SET/GATE Qualified

S No	Examination	Qualifying Year	Subject	Certificate Number
1	GATE	2006	Computer Science	CS834021

Languages Known

- English
- Hindi

Employment History

S No	Position	Organization/Institution	Date of joining	Date of leaving	Duration
1	Assistant Professor (Senior Grade)	Department of Computer Science & Engineering and Information Technology, Waknaghat, Solan, Himachal Pradesh, India, Pin-173234	1st Dec 2019	Till Date	More than 2 years
2	Assistant Professor (Grade II)	Department of Computer Science & Engineering and Information Technology, Waknaghat, Solan, Himachal Pradesh, India, Pin-173234	1st Aug 2012	30th Nov 2019	7 years 4 months
3	Senior Lecturer	Department of Computer Science & Engineering and Information Technology, Waknaghat, Solan, Himachal Pradesh, India, Pin-173234	1st July 2011	31st July 2012	1 year 1 month
4	Lecturer	Department of Computer Science & Engineering and Information Technology, Waknaghat, Solan, Himachal Pradesh, India, Pin-173234	1st Feb 2009	30th June 2011	2 years 5 months
5	Associate Lecturer	Department of Computer Science & Engineering and Information Technology, Waknaghat, Solan, Himachal Pradesh, India, Pin-173234	28th July 2005	31st January 2009	3 years 6 months 4 days
6	Faculty	DOEACC Centre, Chandigarh, Branch Office Shimla	22nd June 2005	25th July 2005	1 month 3 days
7	Guest Faculty	University Institute of Information Technology (UIIT), Himachal Pradesh, University, Summer Hill, Shimla, Himachal Pradesh, India, Pin -171005	6th Dec 2000	18th May 2005	4 years 5 months 13 days

II. Teaching and Activities Related to the Administration and Development of Teaching

Recent Teaching

- Advanced Java

- Data Structure and Algorithms

- Statistics and Exploratory Data Analytics

- Computer Graphics

- Python Programming

- Object-Oriented Systems and Programming

- Parallel Processing

Administrative Activities

S No	Name	University / Institute	From	To
1	In-charge "Board of Studies" CSE/IT Dept. JUIT Waknaghat	JUIT Waknaghat	1st Aug 2005	Till Date
2	In-charge "Departmental Advisory Committee" CSE/IT Dept.	JUIT Waknaghat	1st Aug 2005	31st Dec 2019
3	In-charge for training the students for placement in IT companies	JUIT Waknaghat	1st Aug 2006	30th Dec 2012
4	Coordinator: "Two-Week Student Induction and Orientation Program" for newly admitted students 2018 batch	JUIT Waknaghat	18th July 2018	1st Aug 2018

Academic Activities

S No	Name	University / Institute	From	To
1	Mentor of B. Tech (CSE/IT) students for Minor and Major Projects	JUIT Waknaghat	July 2005	Till Date
2	Mentor of M. Tech (CSE) students	JUIT Waknaghat	July 2012	July 2013
3	Supervisor of Ph. D students	JUIT Waknaghat	July 2019	Till Date
4	Counselor of B. Tech (CSE/IT) students	JUIT Waknaghat	July 2005	Till Date
5	DPMC member for Ph .D students in CSE/IT and ECE departments	JUIT Waknaghat	July 2020	Till Date

6	Development of the syllabi of various courses for B. Tech (CSE/IT) programme	JUIT Waknaghat	Jan 2006	Till Date

Other Activities in Support of Teaching

- Active participation in the conduct/organization of conferences at JUIT Waknaghat.
- Conducting the placement classes.
- Design of interactive presentation slides for various courses.
- Recommending the students for Master's Programme at various foreign universities.
- Attending conferences, trainings, workshops, and faculty development programs to improve the skills.

Involvement in Organizing Conferences/Workshops/Seminars

S No	Name of Conference/Workshop	Organizing Agency	Date	Role
1	Sixth International Conference on Image Information Processing (ICIIP 2021)	Department of Computer Science Engineering and Information Technology, JUIT, Waknaghat	26-28 Nov 2021	Chief Coordinator Finance Committee
2	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC 2020)	Department of Computer Science Engineering and Information Technology, JUIT, Waknaghat	6-8 Nov 2020	Member Organizing Committee
3	Fifth International Conference on Image Information Processing (ICIIP 2019)	Department of Computer Science Engineering and Information Technology, JUIT, Waknaghat	15-17 Nov 2019	Chief Coordinator Finance Committee
4	Fifth International Conference on Parallel, Distributed and Grid Computing (PDGC 2018)	Department of Computer Science Engineering and Information Technology, JUIT, Waknaghat	20-22 Dec 2018	Member Organizing Committee
5	Fourth International Conference on Image Information Processing (ICIIP 2017)	Department of Computer Science Engineering and Information Technology, JUIT, Waknaghat	21-23 Dec 2017	Co-Chair Publicity Committee
6	Fourth International Conference on Parallel, Distributed and Grid Computing (PDGC 2016)	Department of Computer Science Engineering and Information Technology, JUIT, Waknaghat	22-24 Dec 2016	Member Organizing Committee
7	Third International Conference on Image Information Processing (ICIIP 2015)	Department of Computer Science Engineering and Information Technology, JUIT, Waknaghat	21-24 Dec 2015	Co-Chair Publicity Committee
8	Third International Conference on	Department of Computer	11-13 Dec	Co-Chair

	Parallel, Distributed and Grid Computing (PDGC 2014)	Science Engineering and Information Technology, JUIT, Waknaghat	2014		Publicity Committee
9	Second International Conference on Image Information Processing (ICIIP 2013)	Department of Computer Science Engineering and Information Technology, JUIT, Waknaghat	9-11 Dec 2013		Co-Chair Publicity Committee
10	Second International Conference on Parallel, Distributed and Grid Computing (PDGC 2012)	Department of Computer Science Engineering and Information Technology, JUIT, Waknaghat	6-8 Dec 2012		Co-Chair Publicity Committee
11	First International Conference on Image Information Processing (ICIIP 2011)	Department of Computer Science Engineering and Information Technology, JUIT, Waknaghat	3-5 Nov 2011		Member Publicity Committee
12	First International Conference on Parallel, Distributed and Grid Computing (PDGC 2010)	Department of Computer Science Engineering and Information Technology, JUIT, Waknaghat	28-30 Oct 2010		Organizing Committee

Faculty Development Programme (FDP)/ Workshops/ Refresher Courses Attended

S No	Name	Organizing Agency	From	To	Sponsoring Agency	Remarks
1	FDP Workshop on R Programming	CSE/IT Dept. JUIT Waknaghat	28th Apr. 2020	2nd May 2020	Spoken Tutorial Project, IIT Bombay.	One week FDP
2	Online FDP on G Suite	JUIT Waknaghat	10th Aug. 2020	14th Aug. 2020	NA	One week FDP
3	LDRA Oriented Workshop	CSE/IT Dept. JUIT Waknaghat	7th Dec 2018	7th Dec 2018	LDRA	One day workshop
4	Wireless and Mobile Communications	ECE Dept. JUIT Waknaghat	30th Oct 2017	3rd Nov 2017	NITTTRC	One week workshop
5	Digital Repository	IIAS Shimla & IIT Kharagpur	21st Sep 2017	22nd Sep 2017	NDL	Two days workshop
6	Virtual Labs	CSE/IT Dept. JUIT Waknaghat	28th Feb 2017	28th Feb 2017	IIT Delhi	One day workshop
7	Virtualization and Cloud Computing	CSE/IT Dept. JUIT Waknaghat	24th Dec 2015	30th Dec 2015	NA	One week FDP

8	FDP	JUIT Waknaghat	14th July 2014	20th July 2014	NA	One week FDP
9	Antenna Material	ECE Dept. JUIT Waknaghat	14th Dec 2012	15th Dec 2012	DRDO	Two days workshop
10	Workshop on NS2	GLA University Mathura, UP	2nd March 2012	2nd March 2012	NA	One day workshop
11	FDP on Wireless Sensor Networks	JUIT Waknaghat	5th July 2011	9th July 2011	IUCEE	One week FDP
12	FDP on Computer Networks	KIIT University Bhubaneswar	12th July 2010	16th July 2010	IUCEE	One week FDP

Participation in Conferences

S No	Conference/ Symposium	Presented/ Attended	Title of Paper (if presented)	Organizing Agency	Date
1	International Conference on Smart Electronics and Communication (ICOSEC-2020)	Presented	Trust-based Incentive for Mobile Offloaders in Opportunistic Networks	Kongunadu College of Engineering and Technology, Tiruchirappalli, Tamilnadu, India.	10-12 Sept. 2020
2	National Symposium on Medical Image Acquisition, Processing and Analysis	Attended	NA	JUIT Waknaghat, Solan, Himachal Pradesh, India	20-22, Nov. 2017
3	International Conference on Recent Innovations in Computer Science and Information Technology (RICSIT-2017).	Attended	NA	UIIT Himachal Pradesh University, Shimla, India.	19-20 May 2017
4	Fourth International Conference on Computing For Sustainable Global Development (INDIACOM 2017)	Session Chair	NA	Bharati Vidyapeeth's Institute of Computer Applications and Management (BVICAM), New Delhi, India.	1-3 Mar. 2017
5	International Conference on Recent Innovations in Computer Science and	Presented	A Vampire Act of Sybil Attack on the Highest	UIIT Himachal Pradesh University,	2016

	Information Technology (RICSIT-2016).		Node Degree Clustering in Mobile Ad Hoc Networks	Shimla, India,	
6	Fourth International Conference on Networks & Communications (NetCoM 2012)	Presented	Perspectives of Sybil Attack in Routing Protocols of Mobile Ad Hoc Network	Chennai, India.	22-24 Dec. 2012
7	International Conference on Contemporary Computing (IC3 2009).	Attended	NA	Jaypee Institute of Information Technology University & University of Florida. Venue JIIT University, Noida, India	17-19 Aug, 2009
8	National Conference on Communication Systems and Networking (CSN-2008)	Presented	Two-Phase Detection of Sybil Attack in Ad hoc Network	Jaypee Institute of Engineering & Technology, A-B Road, Raghogarh, Guna, MP, India.	15-16 Mar. 2008
9	International conference on Information Technology (INTL-INFOTECH-2007)	Presented	Sybil Attack Detection Techniques in Mobile Ad Hoc Networks	Haldia Institute of Technology, Haldia, West Bengal, India	19-21 Mar. 2007

Invited Lectures/Keynotes

S No	Invited Lecture	Title	Date
1	Delivered a lecture to the students of B. Tech at UIIT Dept. HP University	Sybil Attack in the Wireless Ad hoc Networks	31st May 2018
2	Delivered a lecture to the students of B. Tech at UIIT Dept. HP University	Wireless Ad hoc Network and its Tactical Applications	25th Nov 2017

III. Research and Development and Creative Activities

Research Areas

- Security in MANETs, WSNs, and IoT-based applications

Ph. D Thesis Supervised

S No	Roll No	Name of the Student	Title of Thesis	Status	University
1	146203	Prince Sharma	An Efficient Mobile Data Offloading Solution for Opportunistic Networks	Awarded 2021	JUIT, Waknaghat Solan, Himacahl Pradesh, India

M. Tech Thesis Supervised

S No	Roll No	Name of the Student	Title of Thesis	Year of Completion	University
1	102226	Sujit Kumar	Detection of Sybil Attack using Received Signal Strength Indicator based Scheme in Mobile Ad Hoc Network	2012	JUIT, Waknaghat Solan, Himacahl Pradesh, India
2	102232	Vivek Kumar Tyagi	Sybil Attack/Sybil Node Detection Using Angle of Arrival Method	2012	JUIT, Waknaghat Solan, Himacahl Pradesh, India
3	112214	Nilesh Kumar Pandey	Performance Evaluation of Lowest ID, Highest Node Degree and Mobility based Cluster Routing Protocols in MANETs	2013	JUIT, Waknaghat Solan, Himacahl Pradesh, India

Reviewer of International Journals

- Journal of Network and Computer Applications (JNCA), International Journal of Agricultural and Environmental Information Systems (IJAEIS), Sustainable Computing: Informatics and Systems, Taylor and Francis, Inderscience.

TPC Member/ Reviewer at International Conferences

- Reviewer for PDGC 2010 – Till Date

- Reviewer for ICIIP 2011 – Till Date
- Reviewer for RICSIT 2016, 2017

Funded Projects Submitted

- Submitted one research proposal to TiH-Anubhuti, IIIT Delhi Designing Cognitive Computing and Social Sensing Enabled Maternal Child Public Health Solutions on February 2021

Membership of Professional Bodies

- Member of IEEE
- Member of ACM
- Member of Computer Society of India

LIST OF PUBLICATIONS

Book Chapter(s):

Santosh Kumar, **Amol Vasudeva**, and Manu Sood (2021). "Battery and Energy Management in UAV-Based Networks", *Unmanned Aerial Vehicles for Internet of Things (IoT) Concepts, Techniques, and Applications*, Wiley Online Library, pp. 43-71. DOI: https://doi.org/10.1002/9781119769170.ch3

Journal(s):

- Prince Sharma, Shailendra Shukla, and **Amol Vasudeva** (2021). "Trust-Based Opportunistic Network Offloaders for Smart Agriculture", *International Journal of Agricultural and Environmental Information Systems*, 12 (1), pp. 37-54. DOI: DOI: 10.4018/IJAEIS.20210101.oa3

- Prince Sharma, Shailendra Shukla, and **Amol Vasudeva** (2021). "Data Offloading via Optimal Target Set Selection in Opportunistic Networks", *Mobile Networks and Applications*, 26 (3), pp. 1270-1280. DOI: https://doi.org/10.1007/s11036-021-01760-2

- **Amol Vasudeva** and Manu Sood (2018). "Survey on Sybil Attack Defense Mechanisms in Wireless Ad hoc Networks", *Journal of Network and Computer Applications*, 120, pp. 78-118. DOI: https://doi.org/10.1016/j.jnca.2018.07.006

- **Amol Vasudeva**, Prem Prakash, and Manu Sood (2016). "A Vampire Act of Sybil Attack on the Highest Node Degree Clustering in Mobile Ad Hoc Network", *Indian Journal of Science and Technology*, 9 (32), pp. 1-9. DOI: 10.17485/ijst/2016/v9i32/100217

- **Amol Vasudeva** and Manu Sood (2012). "Sybil Attack on Lowest ID Clustering Algorithm in the Mobile Ad Hoc Network". *International Journal of Network Security & Its Applications*, 4 (5), pp. 135-147. DOI:10.5121/ijnsa.2012.4511

Conference(s):

- Santosh Kumar, **Amol Vasudeva**, Manu Sood (2022). "Security Issues in the Routing Protocols of Flying Ad hoc Networks", *International Conference on Innovative Computing and Communication (ICICC 2022),* Shaheed Sukhdev College of Business Studies, University of Delhi, India (Paper Accepted).

- Parul Jhingta, **Amol Vasudeva**, Manu Sood (2022), "Applicability of Communication Technologies in Internet of Things: A Review", *International Conference on Innovative Computing and Communication (ICICC 2022),* Shaheed Sukhdev College of Business Studies, University of Delhi, India (Paper Accepted).

- Prince Sharma, Shailendra Shukla, **Amol Vasudeva** (2020). "Trust-based Incentive for Mobile Offloaders in Opportunistic Networks", *Proceedings of the International Conference on Smart Electronics and Communication (ICOSEC)",* Trichy, India, 10-12 Sept. 2020, pp.872-877.

- **Amol Vasudeva**, Nishtha, and Manu Sood (2019). "Sybil Attack in Vehicular Ad hoc Network (VANET) – A Survey". *Proceedings of the (FAI Conference Proceedings) International Conference on Engineering, Mathematical Computational Intelligence (ICEMCI2019)*, Jabalpur, India, 21-23 Dec, 2019, pp. 59-70.

- Manu Sood and **Amol Vasudeva** (2012). "Perspectives of Sybil Attack in Routing Protocols of Mobile Ad Hoc Network", *Proceedings of the International Conference on Networks & Communications*, Chennai, India, pp. 3-13.

- **Amol Vasudeva**, J. Sandeepan, Nitin Kumar (2009). "PASE: P2P Network Based Academic Search and File Sharing Application", *Proceedings of the International Conference on Computational Intelligence, Communication Systems and Networks*, Indore, 23-25 July 2009, pp. 442-447.

- **Amol Vasudeva**, Arvind Kumar Shamra, Ashish Kumar. (2009). "Saksham: Customizable x86 based Multi-Core Microprocessor Simulator", *Proceedings of the International Conference on Computational Intelligence, Communication Systems and Networks*, Indore, 23-25 July 2009, pp. 220-225.

- **Amol Vasudeva**, Sarit Pal, Pankaj Tripathi, Kanishk Kumar (2008). "Two-phase Detection of Sybil attack in Ad hoc Network", *Proceedings of the National Conference on Communication Systems and Networking, CSN-2008*. Jaypee Institute of Engineering & Technology, A-B Road, Raghogarh, Guna, MP, India, March, 2008.

- **Amol Vasudeva**, Sarit Pal, Nitin Nigam, Siddharth Dev, Nitin Gupta, Chetan Malhotra (2008). "Design of Low Interaction Honeypot to Track Distributed Denial of Services Attacks", *Proceedings of the National Conference on Communication Systems and Networking (CSN-2008)*, Jaypee Institute of Engineering & Technology, A-B Road, Raghogarh, Guna, MP, India, March, 2008.

- Sarit Pal, Achyut Sharma, **Amol Vasudeva**, Sanatya Singh, Debojyoti Saha, Anand Mohan Sinha, and SK Kak (2007). Defense Mechanisms against Distributed Denial of Service Attacks.

International conference on Information Technology (INTL-INFOTECH-2007). Haldia Institute of Technology, Haldia, West Bengal, India. pp. 117-124

- Sarit Pal, Achyut Sharma, **Amol Vasudeva**, Sanatya Singh, Debojyoti Saha, Anand Mohan Sinha, and SK Kak (2007). "Sybil Attack Detection Techniques in Mobile Ad Hoc Networks", *International conference on Information Technology (INTL-INFOTECH-2007).* Haldia Institute of Technology, Haldia, West Bengal, India. pp. 335-342