Personal Details

Name:	**Sudesh Kumar**
Designation:	**Assistant Professor**
Qualification:	**B.E.(CSE), M.E.(CSE)**
Phone :	**Extn: 2307**
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Complete Resume   (upload)

General Information

Name	**Sudesh Kumar**
Designation	**Assistant Professor**
Qualification	**B.E.(CSE), M.E.(CSE)**
Date of Birth	**01-08-1984**
Date of Joining	**12-12-2011**

Contact Details

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Specialization

		Computer Network, Network Security, Software Defined Networking

Educational Qualification

Name of the Degree	Year of Passing	Institute/University
B.E.(CSE)	2006	Rajasthan University, Rajasthan
M.E.(CSE)	2009	Punjab Engineering College, Chandigarh
Ph.D.(CSE)	Pursuing	Shri Mata Vaishno Devi University, Katra

Teaching/Industry Experience

Position Held	Department and Organization	From	To	Total Experience
Assistant Professor	Shri Mata Vaishno Devi University, Katra	12-12-2011	TILL DATE	12 years, 11 months
Assistant Professor	Banasthali University, Rajasthan	14-07-2010	07-12-2011	1 year, 4 months
Assistant Professor	National Institute of Technology, Jalandhar	11-01-2010	04-06-2010	4 months
Lecturer	National Institute of Technology, Jalandhar	27-07-2009	18-12-2009	4 months

Administrative Experience

Position Held	Department and Organization	From	To
Faculty In-charge, Network Centre	Network Centre	2016	2019
Remote Centre Coordinator	SMVDU & IIT Bombay	2013	Till date

Research Experience

Research Interests:	Machine Learning application in computer network and network security
Brief Research Statement:	My research focuses on applying Machine Learning (ML) models to enhance malware detection and mitigate Distributed Denial of Service (DDoS) attacks. By analysing network traffic patterns, ML models identify anomalies linked to malicious activities in real-time. Supervised learning aids in classifying malware, while unsupervised and reinforcement learning techniques detect and respond to evolving DDoS threats. This work aims to develop scalable, adaptive,

				and robust solutions for securing modern networks against sophisticated cyberattacks.							

Research Projects

Role	Project Type	Title	Funding Agency	From	To	Amount	Status	Co-Investigator	Sanction Order	Sanction Date

Journal Publications

Year	Author(s)	Title & Vol. No.	Journal Name	Indexing (SCI) Web of Science/Scopus
2024	Verma K.; Sikka G.; Swaraj A.; Kumar S.; Kumar A.	Classification of COVID-19 on Chest X-Ray Images Using Deep Learning Model with Histogram Equalization and Lung Segmentation, volume 5	SN Computer Science	Scopus
2024	Kumar S.; Shersingh; Kumar S.; Verma K.	Malware Classification Using Machine Learning Models, volume 235	Procedia Computer Science	Scopus

Conference Publications

Year	Author(s)	Title	Conference name with place	Indexing (SCI/Web of science/Scopus)
2024	Haji L.J.; Kumar S.	Feature Selection-Based Machine Learning Model for Malware Detection	Signals and Communication Technology	Scopus
2023	Verma K.; Kumar A.; de Sales L.M.; Kumar S.; Sharma A.K.; Singh N.	Enabling Real-Time Vehicle-to-Vehicle (V2V) Communication for Intelligent Transportation System (ITS)	Lecture Notes in Electrical Engineering	Scopus
2023	Kumar S.; Pathak P.; Agrawal	Network Intrusion Detection	Lecture Notes in Networks and Systems	Scopus

	K.; Goswami V.; Mahindru A.	System Using Machine Learning			
2021	Vaid P.; Bhadu S.K.; Vaid R.M.	Intrusion detection system in Software defined Network using machine learning approach - Survey	Proceedings of the 6th International Conference on Communication and Electronics Systems, ICCES 2021		Scopus
2019	Kumar S.; Sunanda; Arora S.	Light-Fidelity: Next Generation Wireless Networks-A Survey	Proceedings of the 2nd International Conference on Smart Systems and Inventive Technology, ICSSIT 2019		Scopus
2017	Bhat A.R.; Bhadu S.K.	Machine learning based rate adaptation in DASH to improve quality of experience	2017 IEEE International Conference on Smart Technologies and Management for Computing, Communication, Controls, Energy and Materials, ICSTM 2017 - Proceedings		Scopus
2009	Goel S.; Kumar S.	An improved method of detecting spoofed attack in wireless LAN	1st International Conference on Networks and Communications, NetCoM 2009		Scopus

Book/Chapters Written

Type	Title	Publisher	Author(s)	ISBN/ISSN No.	Year
Book	WiMAX Technology: Security issues & Solutions	LAMBERT Academic Publisher, Germany.	Sudesh Kumar	978-3-8484-0840-5	2012

Research Supervision

Programme Name	Scholar Name	Research Topic	Status	Year	Co-Supervisor (s)
M.Tech(CSE)	Lubna Javed Haji	Feature Selection Based Machine Learning Model For Malware Detection	Completed	2022	
M.Tech(CSE)	Ankush Sharma	Detection Of DDos Attack Using Machine Learning	Completed	2021	
M.Tech(CSE)	Prakriti Vaid	Ml Based Intrusion Detection System For Software Defined Networks	Completed	2020	

Category		Title		Status	
M.Tech(CSE)	Komal Bhardwaj	Load Balancing In Software Defined Networking	Completed	2019	
M.Tech(CSE)	Niharika Pathania	Software Defined Network Firewall	Completed	2018	
M.Tech(CSE)	Samreen Kour	Implementing A Firewall Functionality for Mesh Networks Using Ryu Controller	Completed	2017	
M.Tech(CSE)	Sakshini Hangloo	Software Defined Networking Based Intrusion Detection And Prevention System	Completed	2017	
M.Tech(CSE)	Ashim Rafiq Bhat	Machine Learning Based Rate Adaptation In Dash To Improve QOE	Completed	2016	
M.Tech(CSE)	Prabjot Singh	Segmentation-Free Recognition of Urdu Script Using Hmm	Completed	2015	
M.Tech(CSE)	Divya Khajuria	Detecting Multiple Blackhole And Grayhole Attacks In Manets By Modifying AODV	Completed	2015	
M.Tech(CSE)	Gurjeet Singh	Performance Improvement of Wireless TCP Using Modified LDA	Completed	2014	
M.Tech(CSE)	Arjun Puri	Error Control Codes: A Solution for Secret Key Generation and Key Refreshment Problem	Completed	2013	

Patents

Title	Reg./Ref.No	Date of Award /Filling	Awarding Agencies	Status

Conferences / Workshops/ FDP/STC /Training/Skill Dev Courses Organized

Category	Type	Title	Venue	From	To	Designation
FDP		One week FDP on Machine Learning	MMTC, SMVDU, Katra	28th Feb 2024	5th March , 2024	Co-Organizing Secretary

		for Business Intelligence			
Workshop		One day workshop on C and C++	IIT Bombay, & SMVDU	29th February 2020	29th February 2020	Remote Centre Coordinator
Workshop		One day workshop on Arduino	IIT Bombay, & SMVDU	8th February 2020	8th February 2020	Remote Centre Coordinator
Workshop		One Day Blended Mode Workshop on R	IIT Bombay, & SMVDU	9th November 2019	9th November 2019	Remote Centre Coordinator
Workshop		Two Days National Workshop on Ethical Hacking & Cyber Security	SMVDU Katra	25th September 2019	26th September 2019	Remote Centre Coordinator
Workshop		One Day Esim Workshop	IIT Bombay, & SMVDU	21st September 2019	21st September 2019	Remote Centre Coordinator
Workshop		One Day Linux Workshop	IIT Bombay, & SMVDU	4th August 2019	4th August 2019	Remote Centre Coordinator
Workshop		One Day SciLab Workshop	IIT Bombay, & SMVDU	4th May 2019	4th May 2019	Remote Centre Coordinator
Winter School		Two Weeks Winter School for Engg. Streams at Faculty Development Centre	SMVDU Katra	16th February 2019	1st March 2019	Remote Centre Coordinator
FDP		AICTE Approved FDP on Pedagogy for Online and Blended Teaching Learning Process	IIT Bombay, & SMVDU	3rd May 2018	30th May 2018	Remote Centre Coordinator
FDP		AICTE Approved FDP on Foundation Program in ICT for Education	IIT Bombay, & SMVDU	8th March 2018	12th April 2018	Remote Centre Coordinator
STTP		Two-Week ISTE STTP on "Electric Power System"	IIT Kharagpur & SMVDU	10th July 2017	15th July 2017	Remote Centre Coordinator
STTP		Two-Week ISTE STTP on "CMOS, Mixed Signal and Radio frequency VLSI Design"	IIT Kharagpur & SMVDU	30th January 2017	4th February 2017	Remote Centre Coordinator
STTP		Two-week ISTE STTP on "Introduction to Structural Engineering"	IIT Kharagpur & SMVDU	4th January 2016	9th January 2016	Remote Centre Coordinator

Category	Type	Title	Venue	From	To	Designation
STTP		Two-week ISTE STTP on "Engineering Physics"	IIT Bombay, & SMVDU	8th December 2015	18th December 2015	Remote Centre Coordinator
STTP		Two-week ISTE STTP on "Introduction to Design of Algorithms"	IIT Kharagpur & SMVDU	25th May 2015	30th May 2015	Remote Centre Coordinator
STTP		Two-week ISTE STTP on "Control Systems"	IIT Kharagpur & SMVDU	2nd December 2014	12th December 2014	Remote Centre Coordinator
STTP		Two-week ISTE sponsored workshop on "Computer Networking"	IIT Bombay, & SMVDU	31st June 2014	5th July 2014	Remote Centre Coordinator
workshop		Two-week ISTE sponsored workshop on "Computer Programming"	IIT Bombay, & SMVDU	16th June 2014	21st June 2014	Remote Centre Coordinator
workshop		Two-week ISTE sponsored workshop on "Signals and Systems"	IIT Kharagpur & SMVDU	2nd January 2014	12th January 2014	Remote Centre Coordinator
workshop		ISTE workshop on "Engineering Mechanics"	IIT Bombay, & SMVDU	26th November 2013	6th December 2013	Remote Centre Coordinator
workshop		Two-week ISTE sponsored workshop on "Analog Electronics"	IIT Kharagpur & SMVDU	4th June 2013	14th June 2013	Remote Centre Coordinator
workshop		Two-week ISTE sponsored workshop on "Database Management Systems"	IIT Bombay, & SMVDU	21st May 2013	31st May 2013	Remote Centre Coordinator
workshop		2-DAY ISTE WORKSHOP ON "RESEARCH METHODS IN EDUCATIONAL TECHNOLOGY"	IIT Bombay, & SMVDU	2nd February 2013	9th February 2013	Remote Centre Coordinator
Conferences / Workshops/ FDP/STC / Training/Skill Dev Courses Participated						
Category	**Type**	**Title**	**Venue**	**From**	**To**	**Designation**
Conference		Malware Classification Using Machine Learning Models	2nd International Conference on Machine Learning and Data Engineering (ICMLDE 2023),	November 23, 2023	November 24, 2023	

			ICMLDE, UPES, Dehradun, India			
Conference		Feature Selection-Based Machine Learning Model for Malware Detection	International Conference on Machine Learning, Deep Learning, and Computational Intelligence for Wireless Communication, National Institute of Technology Tiruchirappalli (NIT Trichy), Virtual Mode, Springer	March 22, 2023	March 23, 2023	
Conference		Network Intrusion Detection System Using Machine Learning	International Conference on Emerging Trends and Technologies on Intelligent Systems (ETTIS 2023), Centre for Development of Advanced Computing (C-DAC), Noida, India	February 23, 2023	February 24, 2023	
Conference		Intrusion detection system in Software Defined Network using machine learning approach - Survey	2021 IEEE 6th International Conference on Communication and Electronics Systems (ICCES), IndiaPPG Institute of Technology, Coimbatore, India.	July 8, 2021	July 10, 2021	
Conference		Light-Fidelity: Next Generation Wireless Networks - A Survey	IEEE International Conference on Smart Systems and Inventive Technology (ICSSIT 2019), Francis Xavier Engineering College, Tirunelveli, India	November 27, 2019	November 29, 2019	
Conference		A survey on machine learning: concept, algorithms, and applications	International Conference on Machine Learning & Computational Intelligence (ICMLCI 2017), Shri Mata	September 28, 2017	September 29, 2017	

			Vaishno Devi University (SMVDU), Katra, J&K, India			
Conference		Machine Learning based rate adaptation in DASH to improve Quality of Experience	IEEE International Conference on Smart Technologies and Management for Computing, Communication, Controls, Energy, and Materials (ICSTM 2017), Vel Tech Dr. RR & Dr. SR University, Avadi, Chennai, Tamil Nadu, India	August 2, 2017	August 4, 2017	
Conference		An Improved Method of Detecting Spoofed Attack in Wireless LAN	First International Conference on Networks & Communications (NetCom 2009), Chennai, India	December 27, 2009	December 29, 2009	
FDP		Building Web Development Solutions with Cloud Computing	Edunet Foundation and AICTE	11/11/2024	15/11/2024	
FDP		Recent Trends in computational sciences	Amity University, Kolkata	22nd July, 2024	26th July, 2024	
FDP		One week FDP on Machine Learning for Business Intelligence	SMVDU, Katra	28th Feb 2024	5th March , 2024	
FDP		5 Days FDP on Building Advanced Data Analytics Applications with cloud	Edunet Foundation and AICTE	29/01/2024	02/02/2024	
Orientation and Sensitization Programme		NEP 2020 Orientation and Sensitization Programme	UGC-MMTC, SMVDU, Katra	08/01/2024	17/01/2024	
FDP		Five Days FDP on Trends in Technological Intelligence 2023	BBDNIIT, Lucknow	21st August , 2023	25th August, 2023	
STPDP		UGC - Approved Short Term Professional Development Programme on	Indira Gandhi National Open University, New Delhi	12th June, 2023	20th June , 2023	

		'Implementation of NEP-2020 for University and College Teachers'				
workshop		3rd One week International workshop on technical writing using Latex	VIT-AP University	30th March, 2023	5th April, 2023	
Refresher Course		UGC-SPONSORED Two-Weeks ONLINE Refresher Course on "Artificial Intelligence and Machine Learning"	JNTU, Hyderabad	13th September 2021	25th September 2021	
FDP		AICTE Industry Oriented FDP on Data Science	MSME Technology Development Centre, Meerut	19/07/2021	23/07/2021	
FDP		One Week Faculty Development Programme on "Advance Cyber Security and Forensic"	E & ICT Academy, IIT Kanpur	26th July 2021	31st July 2021	
FDP		Two Weeks Faculty Development Programme on "Data Science"	E & ICT Academy, IIT Kanpur	5th July 2021	16th July 2021	
FDP		5-Days Online FDP on "Emerging Trends in Engg. & Tech"	MRSPTU, Bhatinda	6th July 2020	10th July 2020	
Workshop		4-Days workshop on "Train the Trainer on Examination Reforms"	BVB College of Engg., Hubballi	4th December 2020	7th December 2020	
FDP		One Week Online AICTE ATAL FDP on Cyber Security	NITTTR, Chandigarh	30th April 2020	4th May 2020	
		Two Weeks "Training of Future Skills Technologies: Cyber Security"	IIT Roorkee	24th February 2020	6th March 2020	
FDP		One Week FDP on "Cyber Security and Cyberwar"	UPES, Dehradun	3rd June 2019	7th June 2019	
FDP		One Week FDP on "Research Methodology using R & E-views"	SMVDU, Katra	21st May 2019	25th May 2019	
Workshop		One Week Workshop on "PEDAGOGY"	SMVDU, Katra	11th March 2019	15th March 2019	

FDP		One Week FDP on "Data Analytics"	NIT, Kurukshetra	28th February 2019	4th March 2019	
STC		One Week STC on "Advanced Techniques for Next Generation Networks"	SMVDU, Katra	16th December 2018	20th December 2018	
FDP		One Week FDP on "Wireless & Mobile Communication"	EICT, IIT Roorkee, SMVDU	3rd December 2018	7th December 2018	
FDP		One Week FDP on "Networking & Cyber Security"	SMVDU, Katra	3rd July 2018	7th July 2018	
STP		Five Days Teqip-III Summer Training Program on Active Learning Workshop	IIT Bombay	11th June 2018	15th June 2018	
FDP		One week FDP on Emerging Issues in VLSI Design	SMVDU, Katra	7th May 2018	11th May 2018	
FDP		One week FDP on Application of soft computing and machine learning	SMVDU, Katra	3rd April 2018	7th April 2018	
Workshop		Three Days Workshop TEQIP-III sponsored workshop on NBA Accreditation	Engg. Staff College of India, Jammu	8th December 2017	10th December 2017	
FDP		Two Days Weekend Faculty Development Programme - SSP on "Introduction to Machine Learning"	IIT Bombay & SMVDU, Katra	16th December 2017	17th December 2017	
STC		AICTE Recognized Short Term course on "CISCO CCNA Exploration"	NITTTR, Chandigarh	24th July 2017	28th July 2017	
Workshop		Attended three days national workshop on ETITUM	Calicut University, Calicut	14th December 2016	16th December 2016	
Workshop		Two day workshop on Ultra low power biosensors and implantable microsystems	SMVDU, Katra	2nd December 2016	3rd December 2016	
Workshop		One-day workshop on "Patent Drafting and Filing	SMVDU, Katra	20th October 2016	20th October 2016	
STC		AICTE Recognized short term course on "Optimization	DME, SMVDU	24th October 2016	28th October 2016	

		using MATLAB through ICT"				
STC		AICTE Recognized short term course on "Recent Trends in Automobile Engineering through ICT"	DME, SMVDU	29th February 2016	4th March 2016	
STC		AICTE Recognized short term course on "Mobile Computing through ICT"	SCSE, SMVDU	15th February 2016	19th February 2016	
Refresher Course		Refresher Course on Information Technology	HRDC, GNDU, Amritsar	23rd June 2016	13th July 2016	
Orientation Programme		23rd Orientation Programme (4 weeks)	UGC-HRDC, BPSMV, Haryana	3rd June 2015	30th June 2015	
Workshop		One Day Interactive Workshop for Remote Center Coordinators	IIT Bombay	29th November 2014	29th November 2014	
Workshop		CEP course on "Coordinator's Workshop on Computer Networking"	IIT Bombay, Mumbai	5th May 2014	9th May 2014	
STC		One Weeks AICTE recognized short term course on "Computer Network using CCNA Through ICT"	NITTTR, CHD & SMVDU	10th March 2014	14th March 2014	
STC		One Weeks AICTE recognized short term course on "Network Security and Firewall Through ICT"	NITTTR, Chandigarh	18th November 2013	22nd November 2013	
Training Program		IBM SEED Training Program	SMVDU, Katra	15th August 2013	18th August 2013	
STC		One Weeks AICTE recognized short term course on .NET TECHNOLOGIES	MIMIT, Malout	8th July 2013	12th July 2013	
Workshop		ISTE Workshop on "Aakash for Education"	IIT Bombay	10th November 2012	11th November 2012	
Seminar		UGC Sponsored National Seminar on Wireless	SMVDU, Katra	24th March 2012	25th March 2012	

		Communication & Networks				
Workshop		Three Days National Workshop on "Biological Databases & Data Mining Approaches"	Banasthali University, Rajasthan	18th December 2010	19th December 2010	
Workshop		Two Weeks Workshop on "Effective Teaching/Learning of Computer Programming"	IIT Bombay	July 2010	July 2010	

Expert Talks

Title	Place	Year	Description of Event
Installation, Trouble Shooting and Network Sharing	SMVDU, Katra	2019	Executive Training Program on ' Advance Computer Skills for Effective Performance' of SMVDSB Employee

Consultancy

Title of Consultancy	Client Organization	Faculty Involved	Amount(INR)	Status

International & National Exposure

Sr.No.	Title	Description

Honors & Recognitions Achieved

Sr.No.	Title	Activity	Given By	Year

Links

LinkedIn	**https://www.linkedin.com/in/sudesh-bhadu-425a8464/details/skills/**
Research gate	https://www.researchgate.net/profile/Sudesh-Kumar-22
Facebook	
Instagram	