

## Dr. Rohit Raja – Profile

### Dr. Rohit Raja

Associate Professor & Head

Department of Information Technology,  
Guru Ghasidas Viswavidyalaya (Central University),  
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### Professional Teaching Experience:

S. No.	College	Position	Duration
1	Guru Ghasidas Viswavidyalaya (Central University), Bilaspur (C.G).	Associate Professor	24 Feb 2020 to till date ....
2	SREYAS Institute of Engineering and Technology, Nagole Hyderabad 500068	Professor	26 June 2017 to 22 Feb 2020
3	Shri Shankaracharya Technical Campus (SSTC), Bhilai, CG, India	Sr Assistant Professor	01 July 2006 to 24 June 2017
4	Continuing Education Cell in National Institute of Engineering, Raipur Chhattisgarh.	Tutor	05 Feb 2006 to 10 Apr 2006

### Educational Qualification:

- Post-Doctoral Research Work from Pentagram Research Centre Private Limited, Hyderabad, Telangana State, India under Dr E. G Rajan in 3D Medical Image processing.
- PhD in Computer Science and Engineering from Dr. C. V. Raman University Bilaspur(C.G.) Enrollment number CV/17211/1308 Date of Registration 03/01/2012 and final defense on 22 Aug 2016.
- M. E. Computer Technology and Applications passed in the year 2009 from Chhattisgarh Swami Vivekananda Technical University, Bhilai (Chhattisgarh) securing CPI **8.80**.
- B. E. Computer Science passed in the year 2004 from Pt. R.S.U University, Raipur securing **67%** of marks.

**Field of interest:**

Digital Image Processing  
Medical Image Processing  
Computer Vision  
Pattern Classification  
Video Surveillance.  
Machine Learning  
Deep Learning  
Pattern Recognition

**Work Assign by Management and Department**

- Head of the Department of Information Technology School of Studies (Engineering and Technology).
- Nodal officer for Skill Development Cell at GGV (A Central University).
- NBA Coordinator of School of Studies (Engineering and Technology), GGV (A Central University).
- Member of School Board at School of Studies (Engineering and Technology), GGV (A Central University).
- NAAC Criteria 2 coordinator at GGV (A Central University).
- Members of Board of Studies of CSE and IT Department at SSTC Bhilai, CG Indian.
- Training and Placement Coordinator (SoS, E&T)
- Criteria 5 Head for NBA in Sreyas Institute of Engineering and Technical, Hyderabad.
- Criteria 3 Head for NAAC in Sreyas Institute of Engineering and Technical, Hyderabad.
- MTech (CSE) Coordinator in Sreyas Institute of Engineering and Technical, Hyderabad.
- R&D Coordinator of CSE Department in Sreyas Institute of Engineering and Technical, Hyderabad.
- Domain Head for CSE Department in Sreyas Institute of Engineering and Technical, Hyderabad.
- Member of Board of Studies of CSE at University Level (CSV TU Bhilai).

**Details about Ph.D. Programme:**

Ph.D Thesis titled: **“DESIGN AND DEVELOPMENT OF FACE MODEL FOR THE RECOGNITION OF HUMAN-FACE BASED ON MORPHOLOGICAL IMAGE PROCESSING USING HIGH-END COMPUTING TECHNIQUE”**.

- Supervisor: **Dr. T. S. Sinha**  
Director (Academics and Research),  
Camellia Institute of Technology, Digberia,  
Madhyamgram, Kolkata, India  
Phone no. 09752118745, Email :- [tssinha1968@gmail.com](mailto:tssinha1968@gmail.com)

- **Co-Supervisor: Dr Ravi Prakash Dubey**  
Professor of Mathematics  
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### **Research Link:**

<https://scholar.google.com/citations?user=Kzs8uNYAAAAJ&hl=en&oi=ao>  
<https://www.scopus.com/authid/detail.uri?authorId=36952256400>  
<https://www.researchgate.net/profile/Rohit-Raja-2>  
<https://orcid.org/0000-0003-1195-497X>

### **Publications Summary:**

Patent (National)	<b>: 06 Granted, 10 Published</b>
Patent (International)	<b>: 11 Granted</b>
Copyright	<b>: 02</b>
International Journal	<b>: 73</b>
International Conference	<b>: 25</b>
National Conference	<b>: 05</b>
Books	<b>: 06 Published, 02 In press, 02 Ongoing</b>
Book Chapters	<b>: 12</b>

### **National Patent Filed, Published and Granted: -**

1. **Indian Patent Granted:** An Apparatus and method for remotely monitoring an aquatic animal and classification thereof, Application Number 201941034109 and filing Date 23/08/2019, Publication date 27/09/2019. Granted Application, **Patent Number: 350637**, Date of certificate Issue 02/11/2020.
2. **Indian Patent Granted:** - Face Emotions Recognition Based On Deep Learning for Smart and Secured Child Care Taker, Application Number 202111002128, filing Date 17/01/2021, Publication date 29/01/2021, **Patent number 385681**, Date of certificate Issue 30/12/2021.
3. **Indian Patent Granted:** - Method and System for rendering a panoramic view of traffic to a driver of a vehicle, Application Number 201941000049, Date of Filing Application 01/01/2019, Publication Date: 08/02/2019, **Patent number 385899**, Date of certificate Issue 03/01/2022.
4. **Indian Patent Granted:** - System and Method for Object Detection and Object Tracking for Traffic Surveillance, Application Number 202121026466 and filing Date 14/06/2021, **Publication date 23/07/2021. Patent number 389902**, Date of certificate Issue 21/02/2022.

5. **Indian Patent Granted:-** Method and System for wirelessly charging of an appliance, Application Number 201811040942, Date of Filing Application 30/10/2018, Publication Date: 28/12/2018, **Patent number 394722**, Date of certificate Issue 12/04/2022.
6. **Indian Patent Granted:-** An Unmanned Aerial Vehicle for Surveillance, Application Number 202021045472 and filing Date 20/10/2020, Publication Date 13/11/2020. Patent number 401497, Date of certificate Issue 18/07/2022.
7. **Patent Published:** - Deep Learning Based Robotic Judge for Rash Driving Crime, Application Number 202141002082 and filing Date 16/01/2021, Publication date 22/01/2021.
8. **Patent Published:** Systems and methods for Two-Wheeler Security, Application Number 201921008522 and filing Date 05/03/2019, Publication Date 16/08/2019.
9. **Patent Published:** Identify Pollutants from Vehicle Exhaust at Toll Plazas with Provision of Penalty, Application Number: 201911005535, Filing date 12/02/2019, Publication Date 12/07/2019
10. **Patent Published:** Method and System for determining a position of an object in a suspicious condition, Application Number: 201941004200, Date of Filing Application 02/02/2019. Publication Date: 08/02/2019.
11. **Patent Published:** Method and System for Aiding driver of a vehicle to ensure a safe driving environment, Application Number 201941000050, Date of Filing Application 01/01/2019, Publication Date: 08/02/2019.
12. **Patent Published:** Mechanisms to Prevent Road Accidents in Low Light Intensity Environments Using a Drone System, Application Number 201821047908, Date of Filing Application 18/12/2018, Publication Date: 08/02/2019.
13. **Patent Published:** Methods and Systems for Rendering Road Information from a First Vehicle to a second Vehicle, Application Number 201841044218, Date of Filing Application 23/11/2018, Publication Date: 07/12/2018.
14. **Patent Published:** Computer Vision and Its Application in Assessment of Cognitive Ability of Human Brain, Application Number 201821034835, Date of Filing Application 15/09/2018, Publication Date: 07/12/2018.
15. **Patent Published:** A Novel Smart Carbonless Cooking Gasifier, Application Number 202031044344 Date of Filing Application 12/10/2020, Publication Date: 04/12/2020.
16. **Patent Published:** - System and Method for providing Cyber Security in Big Data, Application number 2020 Filed on 08/06/2020.

### **International Patent Published and Granted: -**

17. **Australian Patent Granted:** - SBDA- Secured Bra for women safety, smart and secured bra for women safety based on Deep Learning Algorithms, Patent Number 2020102636. Granted on: - 2020-10-08.
18. **Australian Patent Granted:** - An apparatus and method for remotely monitoring an aquatic animal and classification thereof, Application Number 2020103852. Granted on:- 2020-12-02
19. **Australian Patent Granted:** - Dynamic Digital Twin System and A Method of Operating Thereof, Patent number 2020103853, Granted on: - 2020-12-02.
20. **Australian Patent Granted:** - A System and A Method for Automated Irrigation Using Internet of Things, Application Number 20201043853, Granted on: - 2020-12-29.

21. **Australian Patent Granted:** - Self-Cleaning and Germ-Killing Revolving Public Toilet for Covid, Patent Number 2021100059, filed on - 2021-01-06. [Granted on: 10/03/2021
22. **Australian Patent Granted:** - Novel 3d Printed Bionic Prosthetic Leg Application Number 2021100285. Granted on: - 2021-01-17.
23. **Australian Patent Granted:** - An Internet of Things Based Smart Parking System and Its Method Thereof, Application Number 2021102314, Granted on 2021-05-01.
24. **Australian Patent Granted:** - Delicate Vibratory Instrument for Neonates Oral Motor Simulation Patent Number: - 2021101385. Granted on: - 2021-03-17.
25. **Australian Patent Granted:** - A System And Method For Preventing Corona Virus Transmission, Patent Number: - 2021102958, Granted on: - 2021-05-29.
26. **Australian Patent Granted:** - An Emotion Detection System and Method Using Pattern Recognition, Patent Number: - 2021106885.
27. **Germany Patent Granted:-** Traffic surveillance system, Application number 20 2021 103 650.8 Filing Date 07/07/2021 Granted on: 04/03/22

### Copy Right Grant:

1. **Copy Right Grant:** - AROGYA ODISHA- A Novel Mobile Application Based Empowering Telemedicine, Registration Number: L-98057/2020
2. **Copy Right Grant:** - IOT Based Disinfectant Sanitizer Tunnel Against Covid-19 Using Human Detecting Sensors and End to End Security Model, Registration Number: L-98059/2020.

### International Journals (SCI and Scopus)

- [1]. Sandeep Kumar, **Rohit Raja**, Md Rashid Mahmood, and Shilpa Choudhary, “A Hybrid Method for the Removal of RVIN Using Self Organizing Migration with Adaptive Dual Threshold Median Filter” in Sensing and Imaging Springer Journal. **(ESCI & Scopus Accepted & Q-3)**. [SCI Index Impact Factor –1.158 ].
- [2]. **Rohit Raja**, Prakash Chandra Sharma, Md Rashid Mahmood, Dinesh Kumar Saini, Analysis of Anomaly Detection in Surveillance Video: Recent Trends and Future Vision, Multimedia Tools and Applications. <https://doi.org/10.1007/s11042-022-13954-1> [SCI Index Impact Factor – 2.757].
- [3]. Ramakant Chandrakar, **Rohit Raja**, Rohit Miri, Raj Kumar Patra, Upasana Sinha, Computer Succored Vaticination of Multi-Object Detection and Histogram Enhancement in Low Vision. Int. J. of Biometrics. Special Issue: Investigation of Robustness in Image Enhancement and Preprocessing Techniques for Biometrics and Computer Vision Applications. **Accepted** [SCI Index Impact Factor – 1.2].
- [4]. Prakash Chandra Sharma, **Rohit Raja**, Santosh Kumar Vishwakarma, Sanjiv Sharma, Analysis of Brain Signal Processing and Real-Time EEG Signal Enhancement, has been accepted for publication in Multimedia Tools and Applications. <https://doi.org/10.1007/s11042-022-12887-z>, pp 1-21. [SCI Index Impact Factor – 2.757].

- [5]. **Rohit Raja**, Dinesh Gupta, Neeraj Varshney, Abhishek Kumar, Detection of Behavioral Patterns Employing a Hybrid Approach of Computational Techniques, Computers, Materials & Continua, Vol. 72, No.1, pp. 2015–2031, 2022. [SCI Index Impact Factor – 3.860].
- [6]. Amiya Kumar Sahu, Suraj Sharma, **Rohit Raja**, Deep Learning-based Continuous Authentication for an IoT-enabled healthcare service, Computers & Electrical Engineering, Volume 99, 2022, 107817, ISSN 0045-7906, <https://doi.org/10.1016/j.compeleceng.2022.107817>. [SCI Index Impact Factor – 4.152].
- [7]. Ramakant Chandrakar, **Rohit Raja**, Rohit Miri, Alok Kushwaha, Enhanced the moving object detection and object tracking for traffic surveillance using RBF-FDLNN and CBF algorithm, Expert Systems with Applications. 116306, ISSN: 0957-4174, <https://doi.org/10.1016/j.eswa.2021.116306>. [SCI Index Impact Factor – 8.665].
- [8]. Sonam Pandey, Rohit Miri, G. R. Sinha, **Rohit Raja**, AFD Filter and E2n2 Classifier for Improving Visualization of Crop Image and Crop Classification in Remote Sensing Image, International Journal of Remote Sensing. Vol 43, Iss 1, <https://doi.org/10.1080/01431161.2021.2000062> [SCI Index Impact Factor – 3.531].
- [9]. Ramakant Chandrakar, **Rohit Raja**, Rohit Miri. Animal detection based on deep convolutional neural networks with genetic segmentation. Multimed Tools Appl (2021). <https://doi.org/10.1007/s11042-021-11290-4> [SCI Index Impact Factor – 2.757].
- [10]. **Rohit Raja**, Sandeep Kumar, Shilpa Choudhary, Hemlata Dalmia, An Effective Contour Detection based Image Retrieval using Multi-Fusion Method and Neural Network, Submitted to Wireless Personal Communication, PREPRINT (Version 2) available at Research Square DOI: 10.21203/rs.3.rs-458104/v1.
- [11]. Amiya Kumar Sahu, Suraj Sharma, M. Tanveer, **Rohit Raja**, Internet of Things attack detection using hybrid Deep Learning Model, Computer Communications, Vol. 176, 2021, PP. 146-154, ISSN 0140-3664, <https://doi.org/10.1016/j.comcom.2021.05.024>., [SCI Index Impact Factor – 5.047].
- [12]. Sandeep Kumar, Arpit Jain, Anand Prakash Shukla, Satyendra Singh, **Rohit Raja**, Shilpa Rani “A Comparative Analysis of Machine Learning Algorithms for Detection of Organic and Nonorganic Cotton Diseases,” Mathematical Problems in Engineering, vol. 2021, Article ID 1790171, 18 pages, 2021. <https://doi.org/10.1155/2021/1790171>. [SCI Index Impact Factor – 1.009].
- [13]. K. Rohit Kumar, **Rohit Raja**. “Broadcasting the Transaction System by Using Blockchain Technology”. Design Engineering, June 2021, pp. 2115 -21, <http://thedesigengineering.com/index.php/DE/article/view/1912>. [Scopus Index]
- [14]. Laxmikant Tiwari, **Rohit Raja**, Vineet Awasthi, Rohit Miri, G.R. Sinha, Monagi H. Alkinani, Kemal Polat, Detection of lung nodule and cancer using novel Mask-3 FCM and

TWEDLNN algorithms, Measurement, Volume 172, 2021, 108882, ISSN 0263-2241, <https://doi.org/10.1016/j.measurement.2020.108882>. [SCI Index Impact Factor – 5.131]

[15]. **Rohit Raja**, Sandeep Kumar, Md Rashid, Color Object Detection Based Image Retrieval using ROI Segmentation with Multi-Feature Method, in Wireless Personal Communication Springer Journal, Print ISSN0929-6212 online ISSN1572-834 pp-1-24, <https://doi.org/10.1007/s11277-019-07021-6>. [SCI Index Impact Factor – 1.061]

[16]. Santosh Kumar Vishwakarma, Prakash Chandra Sharma, **Rohit Raja**, Vandana Roy, Sakshi Tomar, An Effective Cascaded Approach for EEG Artifacts Elimination, International Journal of Pharmaceutical Research, Vol 12, Issue 4, ISSN 0975-2366, <https://doi.org/10.31838/ijpr/2020.12.04.653>. [Scopus Index Impact Factor- 0.28]

[17]. Sumati Pathak, **Rohit Raja**, Vaibhav Sharma, Srinivas Ambala, ICT Utilization and Improving Student Performance in Higher Education, International Journal of Recent Technology and Engineering (IJRTE) at Volume-8 Issue-2, pp. 5120-5124, July 2019. [Scopus Index Impact Factor- 0.11]

[18]. Rakesh Kumar Lenka, Amiya Kumar Rath, Zhiyuan Tan, Suraj Sharma, Deepak Puthal, N V R Simha, **Rohit Raja**, Shankar Sharan Tripathi, and Mukesh Prasad Building Scalable Cyber-Physical-Social Networking Infrastructure Using IoT and Low Power Sensors, , Vol. 6, Iss. 1, pp. 30162-30173, Print ISSN: 2169-3536, Online ISSN: 2169-3536, Digital Object Identifier: 10.1109/ACCESS.2018.2842760. [SCI Index Impact Factor- 3.74]

[19]. **Rohit Raja**, Tilendra Shishir Sinha, Raj Kumar Patra and Shrikant Tiwari (2018), Physiological Trait Based Biometrical Authentication of Human-Face Using LGXP and ANN Techniques, Int. J. of Information and Computer Security, Vol. 10, Nos. 2/3, pp. 303-320. [Scopus Index Impact Factor- 0.8]

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## International Journals (UGC and Others)

[22]. Jain, S., Mahmood, Md. R., **Raja, R.**, Laxmi, K.R., Gupta, A. (2020). Multi-Label Classification for Images with Labels for Image Annotation. SAMRIDDHI: A Journal of Physical Sciences, Engineering and Technology, Volume 12, Special Issue (3), 183-188.

- [23]. Mahmood, Md. R., **Raja, R.**, Gupta, A., Jain, S. (2020). Implementation of Multi Sensor and Multi-Functional Mobile Robot for Image Mosaicking. SAMRIDDHI: A Journal of Physical Sciences, Engineering and Technology, Volume 12, Special Issue (3), 189-196.
- [24]. Mahmood M, Mohan A, **Raja R**, Gupta A. Parametric Linear Subspace Method for Face Recognition and Pose Estimation. sms[Internet]. 30Nov.2020 [cited 16May2021]; 12(SUP 3):150-6. Available from: [https://smsjournals.com/index.php/ SAM RIDDHI /article /view/2216](https://smsjournals.com/index.php/SAM_RIDDHI/article/view/2216)
- [25]. Ramakant Chandrakar, **Rohit Raja**, Rohit Miri, S R Tandan, Vehicle Detection on Sanctuaries Using Spatially Distributed Convolutional Neural Network, SAMRIDDHI: A Journal of Physical Sciences, Engineering and Technology, Volume 12, Special Issue (3), 116-121.
- [26]. Ramakant Chandrakar, **Rohit Raja**, Rohit Miri, S R Tandan, K. Ramya Laxmi, Detection and Identification of Animals in Wild Life Sancturries using Convolutional Neural Network, 'International Journal of Recent Technology and Engineering (IJRTE)' that will publish at Volume-8 Issue-5, January 2020 in Regular Issue on 30 January 2020.
- [27]. Ramakant Chandrakar, Rohit Miri, **Rohit Raja**, Maguluri Sudeep Joel, object Recognition Using Deep Learning, The International Journal of Analytical and Experimental Modal Analysis Page No:885-911, DOI:18.0002.IJAEMA.2020.V12I9.200001.0156 8590054534.
- [28]. N. Swapna, **Rohit Raja**. An Improved Network-Based Spam Detection Framework for Review In online Social Media, Published in International Journal of Scientific Research in Engineering and Management (IJSREM) Vol. 03, Iss. 09, Sep 2019, ISSN 2590-1892.
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- [30]. Sumati Pathak, **Rohit Raja**, Vaibhav Sharma, and K. Ramya Laxmi, A Framework of ICT Implementation On Higher Educational Institution with Data Mining Approach, European Journal of Engineering Research and Science, ISSN (Online): 2506-8016.
- [31]. Sumati Pathak, **Rohit Raja**, Vaibhav Sharma the Impact of ICT in Higher Education. Published in IJRECE Vol. 7 Issue 1 January-March, 2019. ISSN: 2393-9028 (PRINT) ISSN: 2348-2281 (ONLINE) ISSN: 2393-9028 (PRINT). Vol 7, Issue 1, pp 1650-1656.
- [32]. **Rohit Raja**, Md Rashid Mahmood, Raj Kumar Patra (2018) Study and Analysis of Different Pose Invariant for face Recognition Under Lighting Condition, Sreyas International Journal of Scientists and Technocrats, Vol. 2(2), pp 11-17, 2018.



[33]. **Rohit Raja**, Sonu Agrawal, (2017) An Automated Monitoring System for Tourist/Safari Vehicles Inside Sanctuary, Indian J. Sci. Res. 14 (2): 304-309, 2017 ISSN: 2250-0138 (Online).

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### **International Conferences**

[76]. K. Rohit Kumar, K. Nagarjuna, **Rohit Raja**, A Strategic Approach on Blockchain Technology in Software Testing Mechanism, Proceedings of online” Intentional conference

on International Conference on Recent Innovations in Engineering & Information Technology (ICRIEIT-2021) on **26th July & 27th July 2021**.

[77]. P. Sravana Lakshmi, **Rohit Raja**, K. Ramya Laxmi, A Survey of Medical Image Processing for Lung Cancer Detection, International Conference on Emerging Trends In Engineering Technology Management & Science ICEETMS 2019 on 23rd and 24th Sep Ashoka Institute of Engineering and Technology, Hyderabad.

[78]. Sumati Pathak, Pragya Bhatt, **Rohit Raja**, Vaibhav Sharma, Weka VS Rapid Miner: Models Comparison in Higher Education with these Two Tools of Data, 8th International Conference on Innovations in Electronic & Communication Engineering (ICIECE-2019), 2-3 Aug 2019.

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[85]. **Rohit Raja**, Rajkumar Patra, G R Sinha and Su Su Hlaing, "Soft Computing based Empirical Analysis for Detection of Occlusion in Face Images" International Conference on Communication, Security & Optimization of Decision Support Systems (IC-CSOD)

organized by Thakur College of Engineering & Technology, Mumbai, India on 23-24 February 2018.

[86]. Raj Kumar Patra, **Rohit Raja** and Tilendra Shishir Sinha, Extraction of geometric and prosodic features from human-gait-speech data for behavioural pattern detection: Part II, First International Conference on Advanced Computational and Communication Paradigms (ICACCP) will be held at Sikkim Manipal Institute of Technology (SMIT), Majitar, Rangpo, East Sikkim, Sikkim-737136 during 08-10 September 2017. ICACCP-2017.

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and Environmental Protection Technologies held on 16th – 17th December 2013 at ITM University Campus, Raipur, Chhattisgarh, Vol. 1, pp. 186-196.

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## National Conferences

[101]. **Rohit Raja**, Raj kumar Patra, T. S. Sinha (2017), Extraction of Features from Dummy face for improving Biometrical Authentication of Human, Accepted for Oral Presentation in National Conference on Signal Processing Sustainable Energy Material and Astronomy and Astrophysis (NSSEMA-2017), 28-31 March 2017.

[102]. **Rohit Raja** (2017) Studies and Analysis of Different Innovative Teaching and Learning Strategies for Pedagogy, Innovative Approaches in Teaching Learning and Evaluation, 14-15 feb 2017.

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## **Books**

1. **Rohit Raja**, Sandeep Kumar, K. Ramya Laxmi and Shilpa Choudhary “**Artificial Intelligence and Machine Learning in 2D/3D Medical Image Processing**” in Taylor & Francis Publishing House USA. ISBN 1000337138, 9781000337136.
2. Sandeep Kumar, **Rohit Raja** and K. Rohit kumar “**Blockchain and Machine Learning Based Emerging Technology**” Published by is an imprint of International Book Market Service Ltd. Brivibas gatve 197, LV-1039, Riga, Latvia, European Union. ISBN No:- 9786138945503.
3. **Rohit Raja**. Sandeep Kumar, Suresh Babu, Suresh Akela, 2nd International Conference on Artificial Intelligent, Blockchain & Data Sciences (ICAIBDS), 29th-30th November, 2019, Hyderabad. ISBN Number:- 987-81-945742-4-8.
4. Sandeep Kumar, **Rohit Raja**, Shrikant Tiwari, Shilpa Rani, “**Cognitive Behavior & Human Computer Interaction based on Machine Learning Algorithm**”, Wiley & Scrivener Publishing in 2021, ISBN No: - 13:9781119791607.
5. **Rohit Raja**, Kapil Kumar Nagwanshi, Sandeep Kumar, K. Ramya Laxmi, **Data Mining Technologies using Machine Learning Algorithms**" is to be published by, Wiley & Scrivener Publishing in 2021 ISBN No: -13:9781119791782.



6. Sanjay Kumar, **Rohit Raja**, Alok Kumar Singh Kushwaha, Saurabh Kumar, Raj Kumar Patra, **Green Computing and its Applications**, is to be published by, Nova Science Publication. ISBN: 978-1-68507-357-2, <https://doi.org/10.52305/ENYH6923>.
7. Md. Rashid Mahmood, **Rohit Raja**, Sandeep Kumar, Kapil Nagwanshi, **Ambient Intelligence and Internet of Things: Convergent Technologies**, going to be published by Scrivener Publishing-WILEY, ISBN 9781119821236.
8. Rekh Ram Janghel, **Rohit Raja**, Korhan Cengiz, Next Generation Healthcare Systems Using Soft Computing Techniques, is to be published by CRC Press, USA. ISBN 9781032107974.
9. Naresh Kumar Nagwani, Riju Bhattacharya, **Rohit Raja**, Reham R. Mostafa, **Graph Mining: Application Tools, and Techniques**, is to be published by, Wiley & Scrivener Publishing in 2023. (Ongoing).
10. **Rohit Raja**, "Information Systems Management", is going to be INTECHOPEN LIMITED, incorporated and registered in England and Wales with company number 11086078 and a registered office at 5 Princes Gate Court, London, United Kingdom, SW7 2QJ. (Ongoing)
11. **Parul Dubey & Rohit Raja**, "A Beginners Guide to Amazon Web Services: | is to be published by CRC Press, USA. ISBN 9781032521565" (Ongoing).

## **Book Chapters**

- [1]. Tilendra Shishir Sinha, Devanshu Chakraverty, Rajkumar Patra and **Rohit Raja**, "Modelling and Simulation for the Recognition of Physiological and Behavioural Traits Through Human Gait and Face Images", Discrete Wavelet Transforms- A Compendium of New Approaches and Resents Application, by intech China ISBN 978-953-51-0940-2, pp. 95-125, Feb 2013, edited by Dr. Awad Kh. Al. Asmari <http://dx.doi.org/10.5772/52565>.
- [2]. Tilendra Shishir Sinha, Raj Kumar Patra, **Rohit Raja** and Ravi Prakash Dubey, "Progressive-Regressive Strategy for Biometrical Authentication", In the press to be published as a Book Chapter in a book entitled "Discrete Wavelet Transform" by Intech Europe, ISBN 978-953-51-4356-7, 2015 edited by Dr. Dumitru Baleanu.
- [3]. Patra R.K., **Raja R.**, Sinha T.S. (2018) **Extraction of Geometric and Prosodic Features from Human-Gait-Speech Data for Behavioral Pattern Detection: Part II**. In: Bhattacharyya S., Chaki N., Konar D., Chakraborty U., Singh C. (eds) Advanced Computational and Communication Paradigms. Advances in Intelligent Systems and Computing, Vol 706. Springer, Singapore. ISBN 978-981-10-8236-8.
- [4]. Tiwari L., **Raja R.**, Sharma V., Miri R. (2020) **Fuzzy Inference System for Efficient Lung Cancer Detection**. In: Gupta M., Konar D., Bhattacharyya S., Biswas S. (eds) Computer Vision and Machine Intelligence in Medical Image Analysis. Advances in

Intelligent Systems and Computing, vol 992. Springer, Singapore. Online ISBN978-981-13-8798-2.

- [5]. Kumar S., **Raja R.**, Gandham A. (2020) **Tracking an Object Using Traditional MS (Mean Shift) and CBWH MS (Mean Shift) Algorithm with Kalman Filter.** In: Johri P., Verma J., Paul S. (eds) Applications of Machine Learning. Algorithms for Intelligent Systems. Springer, Singapore. [https://doi.org/10.1007/978-981-15-3357-0\\_4](https://doi.org/10.1007/978-981-15-3357-0_4).
- [6]. **Rohit Raja**, Hiral Raja, Raj Kumar Patra, Kamal Mehta, Akanksha Gupta, K. Ramya Laxmi, **Assessment methods of Cognitive ability of human brains for inborn intelligence potential using Pattern Recognition**, IntechOpen - Biometric Systems ISBN 978-1-78984-188-6
- [7]. Sharma, P. C., Bansal, S., **Raja, R.**, Thwe, P. M., Htay, M. M., & Hlaing, S. S. (2020). **Concepts, strategies, and challenges of data deduplication.** Data Deduplication Approaches: Concepts, Strategies, and Challenges, 37.
- [8]. **Rohit Raja**, Sandeep Kumar, K. Rohit Kumar, **An Overview of Blockchain Technology, Architecture and Future Scope**, Blockchain and Machine Learning Based Emerging Technology Published by is an imprint of International Book Market Service Ltd. Brivibas gatve 197, LV-1039, Riga, Latvia, European Union. ISBN No: - 9786138945503.
- [9]. Laxmikant Tiwari, **Rohit Raja**, Vineet Awasthi, Rohit Miri **“Detection of Nodule and Lung Segmentation Using Local Gabor XOR Pattern in CT Images”**, Artificial Intelligence and Machine Learning in 2D/3D Medical Image Processing, CRC Press eBook ISBN9780429354526.
- [10]. **Rohit Raja**, Sandeep Kumar, Shilpa Rani, K. Ramya Laxmi, **“Lung Segmentation and Nodule Detection in 3D Medical Images Using Convolution Neural Network”**, Artificial Intelligence and Machine Learning in 2D/3D Medical Image Processing, CRC Press eBook ISBN9780429354526.
- [11]. **Rohit Raja**, Neelam Sahu, Sumati Pathak, **Teaching Learning Process and Brain Computer Interaction using ICT Tools**, “Cognitive Behavior & Human Computer Interaction based on Machine Learning Algorithm”, Wiley & Scrivener Publishing in 2021, ISBN No: - 13:9781119791607.
- [12]. Santosh R. Durugkar, **Rohit Raja**, Kapil Kumar Nagwanshi, Sandeep Kumar, **Introduction to Data Mining**, Data Mining Technologies using Machine Learning Algorithms" is to be published by, Wiley & Scrivener Publishing in 2021 ISBN No: - 13:9781119791782.

## **Research Guidance**

**No of candidates Pursuing Ph.D.: 04**

S.No	Name of Candidate	Year of Registration	Date of Viva-voce examination	Area of Research	Status
1	Ms. Sumati Pathak	2017	29/08/2021	Data Mining	Completed
2	Mr Ramakant Chandrakar	2017	05/10/2021	Computer Vision	Completed
3	Mr Laxmikant Tiwari	2017	03/2022	Medical Image Processing	Completed
4	Mr. Kailash Prasad Dewangan	2018	Pursuing	Computer Network	On Going
5	Mr Abhishek Jain	2021	Pursuing	Computer Vision	On Going
6	Mr. Agnivesh Pandey	2021	Pursuing	Biomedical Signal	On Going

### Research Guidance at M.E./ M.Tech Level:- 26

1. **“A Comparative Experimental study and Analysis of Hash Function to LZW Technique of Text Compression”** Submitted by Tansen Patel student of final year ME CTA in year 2010.
2. **“Study and Analysis of Squint Eye using Neuro-Genetic Approach”** Submitted by Anamika Jain student of ME 4<sup>th</sup> SEM in year 2011.
3. **“Human Age Classification using Support Vector Machine”** Submitted by Sangita Agrawal student of ME 4<sup>th</sup> SEM in year 2012.
4. **“Nearest Neighbor selection in peer to peer network using differential evaluation ”** submitted by Ravi kumar patel student of ME 4<sup>th</sup> Sem in 2012.
5. **“RBGCA A hybrid approach of ABC and GA for Travelling Salesman Problem”** submitted by Hemant Nagpure student of ME 4<sup>th</sup> Sem in 2012.
6. **“A Clustering Based Particle Swarm Optimization Method for Digital Image Segmentation”** Submitted by Anita Tandan Student of ME 4<sup>th</sup> Sem in year 2013.
7. **“Grid based multiple feature based on image mosacing”** Submitted by Richa Shukla student of ME 4<sup>th</sup> Sem in year 2013
8. **“Automatic Detection of EAR from side face image using template matching”** Submitted by Aradhana Kumara Singh student of ME 4<sup>th</sup> Sem in year 2013
9. **“Study and Implementation of a Hybrid Approach of Wavelet Transform using Lifting Scheme and Discrete Wavelet Transform Techniques”** Submitted by Keshika Jangde student of ME 4<sup>th</sup> Sem in year 2013.

10. **“Design and Implementation of Multi Sensor and Multi-functional Mobile Robot for Image Mosaicing”** Submitted by Abhishek Kumar Dewangan student of ME 4<sup>th</sup> Sem in year 2014.
11. **“Enhanced face Recognition system using PCA and Euclidean Distance Classification”** Submitted by Ashutosh Chandra Bhensle student of ME 4<sup>th</sup> Sem in Year 2014
12. **“Registration and Restoration from multiple Degraded Colour Images”** Submitted by Anil Kumar Pandey student of ME 4<sup>th</sup> Sem in year 2014.
13. **“Study and Analysis of Different Algorithms for Face Recognition”** submitted by Parul Jain student of ME 4<sup>th</sup> sem in year 2014.
14. **“Study and implementation of Parametric Linear Subspace for Face Recognition and Pose Estimation”** submitted by Yamini Chouhan student of ME 4<sup>th</sup> in year 2013
15. **“Web Mining using Pagerank Based Link Analysis”** submitted by Sanjay kumar singh student of ME 4<sup>th</sup> Sem in year 2014.
16. **“Study and Analysis of occluded image for face recognition”** Submitted by Priya Mate student of ME 4<sup>th</sup> in year 2015
17. **“Pose Invariant for Face Recognition Under Lightening Condition Using classifier”** Submitted by Mahima Verma student of ME 4<sup>th</sup> in 2015.
18. **“Digital Image Fusion Adaptive Neuro Fuzzy Inference System”** Submitted by Shradha Shukla student of ME 4<sup>th</sup> in 2016.
19. **“Moving Vehicle Detection and Tracking using Modified Mean Shift Method and Kalman Filter”** Submitted by Nikita Rawat student of ME 4<sup>th</sup> in 2016.
20. **“Facial Expression Recognition using L1-Norm Minimization-SRC”** submitted by Rehmat Khan student of ME 4<sup>th</sup> Sem in 2016.
21. **“Extreme Climate Change Event Likelihood Prediction from Year 2017-22”** submitted by Kaveri Kar student of ME 4<sup>th</sup> Sem in 2017.
22. **“Software defect prediction using averaging likelihood ensemble technique”** submitted by Riya Singh student of ME 4<sup>th</sup> Sem in 2017.
23. **“A New Framework for Trustworthiness of Cloud Services”** submitted by A. PRITHVI RAJ (15VE1D5802) student of ME 4<sup>th</sup> Sem in 2017.
24. **“CDA Generation and Integration for Health Information Exchange Based One Cloud Computing System”** M. Bhasker Raj Student of ME 4<sup>th</sup> Sem in 2018.
25. **“NetSpam: A Network Based Spam Detection Frame Work for Reviews in Online Social Media”**, Submitted by N Swapna Student of MTech 4<sup>th</sup> Sem in 2019.
26. **“Detection of Nodule and Lung Segmentation using Local Gabor XOR Pattern in CT Images”** Submitted by Pusupula Sravana Lakshmi MTech 4<sup>th</sup> Sem Student.

**Guest Lecture/ Guest Invited**

- **Invited talk on** “Introduction of Trademarks” E-Faculty Development Program on IPR Awareness and Commercial Competences-(IAACC), Organized by IPR Cell, OUI Indore on 15 May 2021.
- **Invited talk on** “Introduction of Copyrights” E-Faculty Development Program on IPR Awareness and Commercial Competences-(IAACC), Organized by IPR Cell, OUI Indore on 15 May 2021.
- **Invited Talk on** “Digital Education during COVID-19 and e-Content Development” National e-Workshop under TEQIP-III organized by Government Engineering College, Raipur, CG held on 25-26 Oct 2020.
- **Invited Talk on** “Computer Technology: A Boon During Corona Pandemic held on 14-15 May 2020”
- **Invited Talk on** “Cloud Computing” One-day Webinar organized by Dr C.V. Raman Bilaspur, CG India, held on 29<sup>th</sup> July 2020
- **Invited Talk on** “Career Guidance” Organized by Industry- Institution Interaction Research Organization, Bhopal, held 30<sup>th</sup> Aug 2020.
- **Invited Talk on** “Intellectual Property Rights” organized by GGV, SoS, E&T, Bilaspur, CG India.
- **Invited Talk on** “Human Gait Analysis” in National Research Seminar Cum Symposium, “Changing Environment and its Impact on Flora and Fauna” Organized by UTTAM MEMORIAL COLLEGE RAIGARH (CG) on 10<sup>th</sup> Jan 2020.
- **Invited Talk on** “Three Dimensional Medical Image Analysis” in National Research Seminar Cum Symposium, “Changing Environment and its Impact on Flora and Fauna” Organized by UTTAM MEMORIAL COLLEGE RAIGARH (CG) on 10<sup>th</sup> Jan 2020.
- **Session Chair Head** in 2<sup>nd</sup> International Conference on International Conference on Artificial Intelligent, Blockchain & Data Science (ICAIBDS-2019).
- **Session Chair Head** in IEEE Conference ICCCA-2018 on 14th-15th December at Greater Noida, India.
- **Session Chair Head** in 8th International Conference on Innovations in Electronic & Communication Engineering (ICIECE-2019), 2- 3 Aug 2019.
- **Session Chair Head** in 2nd International Conference on Innovative Practices in Research in Transdisciplinary Areas (IPRT- 2019) conducted in Andhra Mahila Sabha Arts and Science college for Women on 13 Oct 2019 Hyderabad
- **Session Chair Head** in International Conference on Emerging Trends in Engineering Technology Management & Science ICEETMS 2019 on 23<sup>rd</sup> and 24<sup>th</sup> Sep Ashoka Institute of Engineering and Technology, Hyderabad.

## **FDP/Conferences/Workshop Conducted**

1. **Conference Chair/Convener** of 2nd International Conference on Artificial Intelligent, Blockchain & Data Sciences (ICAIBDS), 29th-30th November, 2019, Hyderabad.

2. **Organizing Chair** of 2<sup>nd</sup> International Conference on Innovative Practices in Research in Transdisciplinary Areas (IPRT- 2019) conducted in Andhra Mahila Sabha Arts and Science college for Women on 13 Oct 2019 Hyderabad

### Special Sessions in International Conference

1. SPECIAL SESSIONS on **Artificial Intelligent and IoT based Applications in Healthcare and Cyber Security**, “Data Engineering and Communication Technology (ICDECT2020), September 25-26, 2020 <https://kitsw.ac.in/icdect2020/> Department of Electronics and Communication Engineering Kakatiya Institute of Technology & Science, Warangal (An Autonomous Institute under Kakatiya University, Warangal) Opp: Yerragattu Gutta, Hasanparthy (M), Warangal-506015 Website: [www.kitsw.ac.in](http://www.kitsw.ac.in).
2. SPECIAL SESSION on **Machine Learning & ANN bases Development for Agriculture Sustainability**, International Conference on Smart Technologies in Computing, Electrical and Electronics (ICSTCEE 2020) REVA University, Bangalore.

### Awards

- Received - **Outstanding Scientist Award**, International Scientist Awards on Engineering and Science and Medicine, 04 & 05 Jul 2020 Coimbatore, India.
- Received: - **Best Researcher Award**, 10<sup>th</sup> International Scientist Awards on Engineering, Science and Medicine 26 & 27 Sep 2020 Hyderabad, India
- Received “**Excellence in Research**” Award Under the Category of HEI Professor by Auropath Global Awards, 2019.
- Received “**Distinguished Research Award** “I2OR Awards 2019 during 4th International Conclave on Interdisciplinary Research for Sustainable Development 2020 (IRSD 2020)
- 2<sup>nd</sup> Runner up award in GRAND Finale of **SMART INDIA HACKATHON 2017** Ministry of Skill Development and Entrepreneurship, Government of India.
- **Best paper award in EPPCSIT’09** held at Guru Nanak Dev Engineering College, Ludhiana, India, for the paper entitled “Modelling and Simulation of Gait for Abnormal Foot Recognition using Neuro-Genetic approach”, on 4<sup>th</sup> – 5<sup>th</sup> September 2009.
- **Best paper award in ICSCI 2010** held at Dr. MCR HRD INSTITUTE, Hyderabad, India, for the paper entitled “Anomaly in Foot Recognition through Human Gait using Hybrid Approach”, on 27<sup>th</sup> – 30<sup>th</sup> January 2010.
- **Governor awards** in Scouts for Outstanding Performance for Society.

### Membership:

- IEEE Senior Member 94882827.

- Life time Membership of Indian Society of Technical Education (ISTE) [Member No. LM100327].
- Life Member of Computer Society of India (CSI-I1510558).
- Member of IET (MIET-1100591709).
- Life time Membership of Science and Engineering Institute(SCIEI)[Member No. 201612300001].
- Life time Membership of Internet Society [Member No. 149666].
- Life time Membership of the Society of Digital Information and wireless communication (SDIWC) [ID-249].
- Life Time member of International Association of Engineers (IAENG-183411).

### **Member of Editorial Board and Technical Committee:**

- Reviewer of International Journal of Computer Science and Engineering Survey (IJCES)
- Reviewer of International Journal of Computer Science and Information Security (IJCSIS)
- Reviewer of Signal and Image Processing: An International Journal (SIPIJ)
- Reviewer of International Journal of Engineering Trends and Technology (IJETT)
- Reviewer of International Journal of New Technology and Research (IJNTR)
- Reviewer of International Journal of Information and Computer Security (IJICS)
- Reviewer of International Journal Image Processing and Visual Communication (IJIPVC)
- Member of Editorial Board of I-managar Journal on Computer Science.
- Member of Editorial Board and Reviewer Board of International Publishers for Advanced Scientific Journals (IPASJ)
- Committee member and Reviewer of in IEEE, ICCSN 2017, Guangzhou, China May 6-8, May 2017.
- Committee Member and Reviewer of (PDGC) 4th International Conference on Parallel, Distributed and Grid Computing.
- Reviewer of Fourth International Conference on Signal and Image Processing (SIGI 2017) Geneva Switzerland 2017.
- Editorial Board Member of Journal of Electronic Research and Application(JERA).
- Member of International Technical Committees 18th IEEE International Conference on Communication Technology Radisson Blu Hotel Chongqing Sha Ping Ba, Chongqing, China | Oct. 8-11, 2018.
- Member of special interest group in Internet-of-things (IoT) to speed up our membership networking and collaboration activities Machine Intelligence Research Labs (MIR Labs).
- Member of International Technical Committees 10th International Conference on Communication Software and Networks (ICCSN 2018) will be held during July 6-9, 2018 in Chengdu, China. ICCSN 2018 is sponsored by University of Electronic Science

and Technology of China, co-sponsored by 54th Institute, CETC, China, Science and Technology on Communication Networks Laboratory, supported by Guangdong University of Technology, China and AET Journal.

- Member of program committee in IEEE International Conference on Computing, Power and Communication Technologies 2018
- Member of Technical Program committee in International Conference on Advanced Computational and Communication Paradigms-2019 (ICACCP-2019) [<http://www.icaccepa.in/>] during February 25-28, 2019.
- Member of Advisory committee of 3rd International Conference on Inventive Communication and Computational Technologies (ICICCT 2019) is being organized on 29, 30 April 2019 at Gnanamani College of Technology, Namakkal, Tamil Nadu .
- Member of Technical Program committee in 8<sup>th</sup> International Conference on Innovations in Electronics & Communication Engineering “ICIECE-2019” is an annual, peer-reviewed, **SCOPUS Indexed Springer Conference** organized by the Department of Electronics and Communication Engineering, Guru Nanak Institutions Technical Campus, Hyderabad.

### **Seminar/Workshop/Training**

1. AICTE Training and Learning (ATAL) Academy Online FDP on "**Data Sciences**" from 2020-10-12 to 2020-10-16 at School of Studies in Engineering and Technology Guru Ghasidas Vishwavidyalaya (A Central University), Bilaspur (C.G.).
2. Attended Five Days Workshop on “**ICT Tools for Teaching, learning process & Institutes**” Jointly organized by Electronics and ICT Academics & Sreyas Institute of Engineering & Technology, held from January 13th -17th January 2020"
3. Attended One Week Faculty Development Program on “**Natural Language Processing**” Jointly organized by Electronics and ICT Academics & Sreyas Institute of Engineering & Technology, held from January 06-10, 2020.
4. Attended 3<sup>rd</sup> Five Days Self-Sponsored Workshop on "**Soft Computing Techniques & Robotics (SCTR-2019)**" during 16th - 20th September, 2019.
5. Attended One Week Faculty Development Program on “**Outcomes Based Education System**” organized by the Sreyas Institute of Engineering & Technology, from 11-15 June 2018
6. Attended one-week TEQIP-III Short Term Training Program (STTP) on “**Computational Intelligence and Cloud Computing**” (CICC 2017) organized by NIT Raipur on 26<sup>th</sup> Dec – 30<sup>th</sup> Dec 2017.
7. Attended one-week MietY, Govt of India, Sponsored Faculty Development Programme on “**Computational Approaches in BIG Data Analytics Applications**” Organized by E & ICT Academy, National Institute of Technology, Warangal, at Department of CSE, SREYAS Institute of Engineering and Technology Hyderabad on 27<sup>th</sup> Nov to 2<sup>nd</sup> Dec 2017.



8. Attended one-week Short Term Training Program (STTP) on “**Machine Learning Tools and Techniques**” organized by NIT Raipur on 10<sup>th</sup> Nov – 14<sup>rd</sup> Nov 2017.
9. Attended one-week STTP on “**Logic Building using C and Matlab**” organized by NIT Raipur on 30<sup>th</sup> Oct – 3<sup>rd</sup> Nov 2017.
10. Attended one-week technical workshop on “**Internet of Things**” organized by Sreyas Institute of Engineering and Technology Hyderabad on 19<sup>th</sup> -23<sup>rd</sup> Sep 2017.
11. Attended one-week STTP on “**Soft-Computing Techniques and Robotics**”, organized by NIT Raipur on 4<sup>th</sup> – 8<sup>th</sup> sep 2017.
12. Attended one-week STTP on MSIP-II at NIT Raipur on 22-26 May 2017.
13. Attended **NPTEL awareness workshop** organized by Shri Shankaracharya Technical Campus, Bhilai on 17 jan 2017.
14. Attended a National level one-week Workshop on “**Matlab**” organized by Sparklab Engineering System Pvt Lmt during 9 -15 Feb 2015.
15. Attended Workshop on “**Python**” organized by Shri Shankaracharya Technical Campus on 08/10/15 to 10/10/15.
16. Attended Faculty Development Program on “**Computer Networking Technology**” organized by Computech Info solution conducted from 17-12-13 to 21-12-2003.
17. Attended a national level workshop on “**Robotics Championship Robo Galaxy**” organized by UV Softs Technologies Pvt. Ltd. during 28 Sep 2013 to 29 Sep 2013.
18. Attended workshop on “**Value Education**” organized by Chhattisgarh Swami Vivekanand Technical University Bhilai C.G. 26<sup>th</sup>-27<sup>th</sup> july 2013.
19. Attended state level workshop on “**Matlab Programming for Engineering and Research**” Organized by Department of Electronics and Instrumentation, SSTC, Junwani During 6<sup>th</sup> - 7<sup>th</sup> 2012.
20. Attended national level IEEE Workshop “**Educational Resource Planning (EDRP)**” organized by IEEE student Branch, SSTC Bhilai on 7<sup>th</sup>-8<sup>th</sup> Oct 2012.
21. Attended faculty development program on “**Network Performance**” Organized By TCS on 6 Nov 2012.
22. Attended two days’ workshop on “**Advance Linux Administration and Networking**” Approved by Indian Society of Technical Education New Delhi organized by MP Christian College of Engineering and Technology on 21 and 22 Nov 2009.
23. Attended Short Term Training Program on “**Data Structure, Algorithms and Complexity**” organized by Department of computer Application BIT Durg on 26-27 sep 2008.

### **Personal Profile**

Name	:	Dr Rohit Raja
Date of Birth	:	03/06/1982
Age	:	40 years
Father Name	:	Mr. Arun Kumar Raja
Mother Name	:	Mrs. Jyoti Raja

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Children : Prakhar Raja, 7<sup>th</sup> Std  
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Date:  
Bilaspur

Dr Rohit Raja