



# **iJRASET**

International Journal For Research in  
Applied Science and Engineering Technology



---

# **INTERNATIONAL JOURNAL FOR RESEARCH**

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

---

**Volume:** 11    **Issue:** IX    **Month of publication:** September 2023

**DOI:** <https://doi.org/10.22214/ijraset.2023.55635>

**[www.ijraset.com](http://www.ijraset.com)**

**Call:** ☎ 08813907089

**E-mail ID:** [ijraset@gmail.com](mailto:ijraset@gmail.com)

# A Review on the Prospects Engineering Management

Aarti Jagtap<sup>1</sup>, Dr. Rupesh C. Jaiswal<sup>2</sup>

<sup>1</sup>Student, <sup>2</sup>Professor, Department of E&TC Engineering, SCTR's Pune Institute of Computer Technology, Pune, India

**Abstract:** Engineering Management seems like a prime opportunity for students who have potent technical skills and wish to develop their abilities to enter the business world. This research paper explores the present trend in engineering management, highlighting the challenges encountered, opportunities for Engineering Management in the future, the benefits of attaining a master's degree, as well as other factors including competencies and skills. It aims to provide a solid framework for engineering graduates who wish to be engineering managers. It is motivated by thorough analysis, factual research, and useful case studies.

## I. INTRODUCTION

The word "management" is simple yet it has a wide range of definitions. All definitions agree on the essence of universality. The definition "Management is the exercise of drawing the straight line from what you are and where you are; to what you want to be and where you want to go" underscores the fundamental principles of management. It emphasises the role of management in guiding an organisation from its current state to its desired future state. [1]

In the context of engineering management, this definition aligns with the essence of the field. Engineering Management plays a critical role in bridging the gap between engineering excellence and organisational goals. It is the art of effectively managing business operations while having expertise in the technical field. Engineering Management graduates are well-versed in their technical competencies and have a strong sense of understanding and grasp upon planning, directing, organising and controlling activities, allocating resources etc.

## II. ENGINEERING MANAGEMENT COURSE OUTLINE

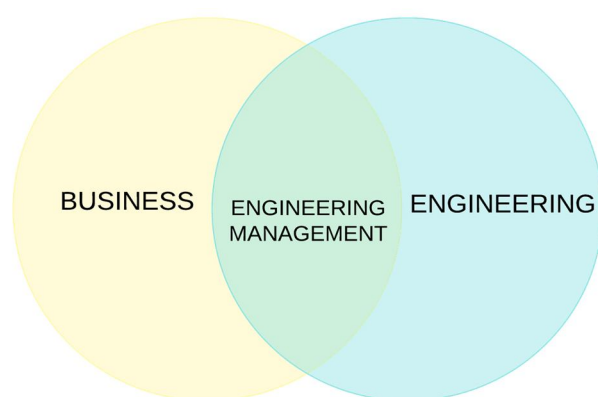


Figure 1: Venn diagram demonstrating the intersection of fields forming Engineering Management

If you are passionate about pursuing a career in engineering management there are multiple ways to do so. Engineering management degrees are available at both the undergraduate and graduate level.

If you want to start your career directly in engineering management then there are bachelor's programs available. These programs provide you the opportunity to major in engineering management specifically or minor in the field along with a related major. If you are an undergraduate student studying engineering management, your school might allow you to choose electives in particular fields

of engineering, like civil engineering, electrical engineering, mechanical engineering, software engineering etc so that you can succeed in that particular field of work.

A Master's degree in Engineering Management is very popular. Engineering graduates who have developed technical skills and want to pursue their career in management or business choose to do a Masters in Engineering Management. It is popularly known as the "Engineer's MBA" or "MBA for Engineers". It is a very versatile profession that offers excellent possibilities for advancement in your career. A master's degree program covers a wide range of topics. It depends on the university where you enrol in the course. The common subjects include - Engineering fundamentals, Project management, Product management, Risk & Operational Analytics, Operations management etc.

### III. JOB OPPORTUNITIES

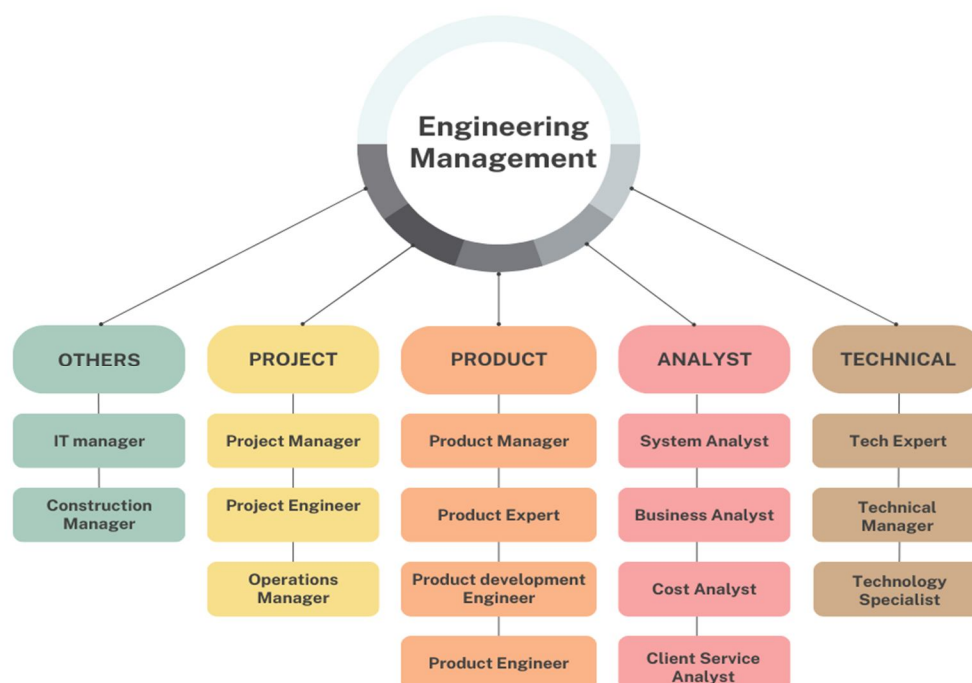


Figure 2: Job opportunities for an Engineering Management graduate

#### A. Role Of An Engineering Manager

Any product or technology is put together by a team of developers and technical experts, however simply developing the product is not enough to make it successful; a professional additionally needs to supervise the operations taking place throughout the development process, keep track on procedures and processes, and manage and lead multiple teams to create a successful product. That professional is an Engineering Manager. [1]

Engineering managers are crucial in converting business-oriented objectives and requirements into workable technical plans and initiatives. They are able to proactively make balanced decisions that will reduce project risks, allocate resources effectively, and consistently deliver high-quality products within the project's budget and schedule. They possess a mutual comprehension of certain essential elements of business management and technical engineering concepts.

In addition to their technical duties, Engineering managers also mentor and lead engineering teams, promoting a culture of creativity, cooperation, and continual advancement. In essence, engineering managers play a critical role in guiding operations that support the organisation's strategic objectives and advance its long-term success.

The following diagram depicts the basic hierarchical structure of a technical organisation. The illustration shows how an engineering manager serves as a link between the lowest and upper levels of an organisation, preserving the harmony and efficient operation of multiple teams.

### B. Challenges In Engineering Management

Being the link between two advancing parts of an organisation involves several difficulties. Maintaining control over both organisational levels while simultaneously leading, directing, and making choices on several kinds of issues is a challenging task. It becomes exceedingly difficult to cope with the tension between teams engaged in various tasks, assure that the work is completed on time, sync multiple activities that operate simultaneously, provide technical expertise, deal with numerous different technical processes, and hold the workforce together. A competent engineering manager should be able to manage all of these duties. [4]. Also, the role of advanced tools required using ML and ESPs [6-65] are becoming important in recent applications, recognition and control.

To be able to take responsibility for such a challenging position a person needs diverse sets of skills and competencies in both technical and managerial aspects. Technical knowledge, effective interpersonal skills, the capacity to multitask, great leadership abilities, the ability to establish and manage teams, flexibility in their decision-making, and critical thinking are all necessary for an engineering manager.

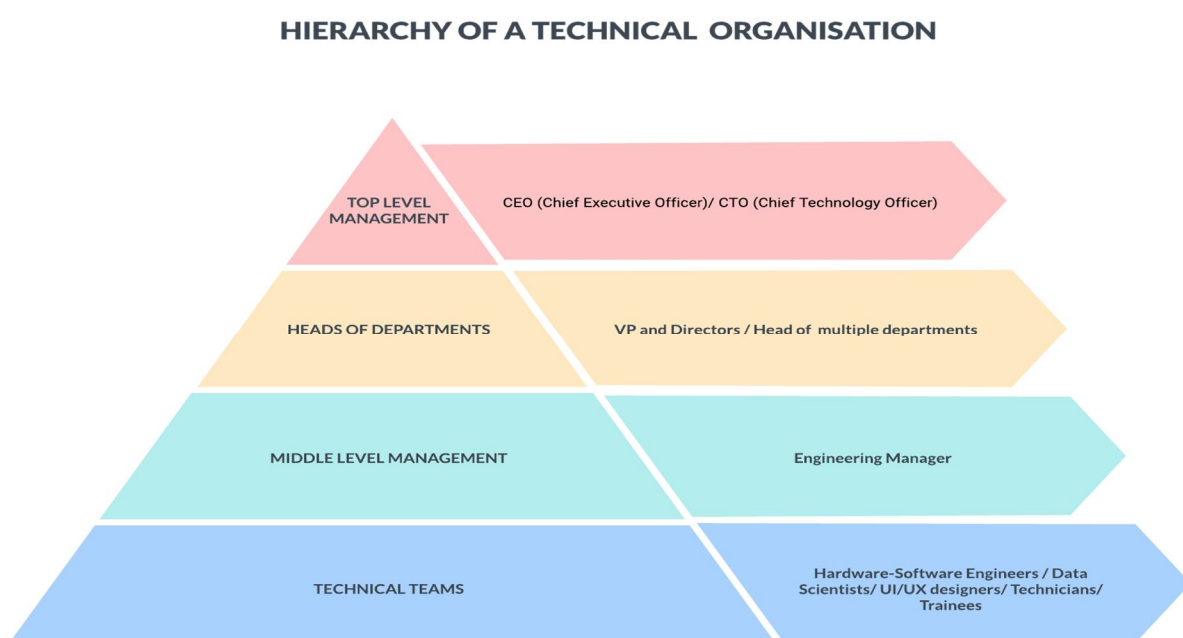


Figure 3: Hierarchy level in companies depicting the position of an Engineering Manager

### IV. FUTURE SCOPE OF ENGINEERING MANAGEMENT GRADUATE

The career choices are vast for an Engineering Manager as it is for any other engineering discipline. The need for experts who can successfully manage technical projects and teams is anticipated to increase as industries become more complicated and technology continues to advance. Engineering management graduates are well-positioned to succeed in this dynamic and changing employment market because of their capacity to bridge the gap between technical and managerial aspects.

### V. CONCLUSION

In conclusion this research paper has focused on the complexities of this pivotal role of engineering manager. Engineering management has become a trend and is going to have a very high demand in future. Engineering graduates who have the ability to handle higher level positions are suited for this role. Engineering managers can make a big change in the industry resulting in the success of the organisation. If you're seeking opportunities within engineering beyond your current work, a degree in engineering management will provide you with the theoretical and practical expertise you need to enhance your career to a more senior position.



## REFERENCES

- [1] Gupta, A. K. (2014). Engineering Management. S. Chand Publishing.
- [2] Eisner, H. (2008). Essentials of project and systems engineering management. John Wiley & Sons.
- [3] Srour, I., Abdul-Malak, M. A., Itani, M., Bakshan, A., & Sidani, Y. (2013). Career planning and progression for engineering management graduates: An exploratory study. *Engineering Management Journal*, 25(3), 85-100.
- [4] Bubenko, J. A. (1995, March). Challenges in requirements engineering. In *Proceedings of 1995 IEEE International Symposium on Requirements Engineering (RE'95)* (pp. 160-162). IEEE.
- [5] Pohl, K. (2010). Requirements engineering: fundamentals, principles, and techniques. Springer Publishing Company, Incorporated.
- [6] Manasi Thonte, Jaiswal R.C., "Technical review on Synthetic Data Generation", *International Journal "Gradya Review Journal" (GRJ)*, UGC Care group-II journal, Open Access, Peer Reviewed, refereed and multidisciplinary Journal, Google Scholar, Scribd, ResearchGate, Scopus indexed, ISSN: 0363-8057; SJR Impact Factor:0.101, Volume 9, Issue VII, pp. 100-109, July 2023.
- [7] Jaiswal R.C. and Dhas Himanshu, "A Technical Paper on Stock Prediction Using Machine Learning Algorithms", *International Journal for Research in Applied Science & Engineering Technology (IJRASET)*, Open Access, Peer Reviewed and refereed Journal, Google Scholar, Mendeley : reference manager, Cite-Factor, Index Copernicus, ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor:7.538, Volume 11, Issue V, pp. 5200-5208, May 2023.
- [8] Jaiswal R.C. and Dhas Himanshu, "Survey Paper on Stock Prediction Using Machine Learning Algorithms", *International Research Journal of Modernization in Engineering Technology and Science (IRJMETS)*, Open Access, Peer Reviewed and refereed Journal, Indexed in Google Scholar, Mendeley Advisor Community, ISSN: 2582-5208; Impact Factor:7.868, Volume 05 Issue IV, pp. 2744-2749, April 2023.
- [9] Jaiswal R.C. and Pranjali Desai, "Network Based Intrusion Detection System", *International Research Journal of Modernization in Engineering Technology and Science (IRJMETS)*, Open Access, Peer Reviewed and refereed Journal, Indexed in Google Scholar, Mendeley Advisor Community, ISSN: 2582-5208; Impact Factor:7.868, Volume 05 Issue III, pp. 3851-3857, March 2023.
- [10] Jaiswal R.C. and Samiksha Baral, "Design & Development of Smart Electric Vehicle Safety Device by using IoT and AI", *2022 Fourth International Conference on Emerging Research in Electronics, Computer Science and Technology (ICERECT)*, 26-27 December-2022, 15 March 2023 Published, DOI: 10.1109/ICERECT56837.2022.10059784, INSPEC Accession Number: 22810474.
- [11] Jaiswal R.C. and Minal Tayde, "Face, Expression and Gesture Recognition & Compilation in Database", *International Journal of Creative Research Thoughts (IJCRT)*, Open Access, Peer Reviewed and refereed Journal, indexed in Google Scholar, Microsoft Academic, CiteSeerX, Publons Indexed, Mendeley : reference manager, ISSN: 2320-2882; SJ Impact Factor:7.97, Volume 10 Issue XII, pp. d714-d724, December 2022.
- [12] Jaiswal R.C. and Shahul Patil, "Small Businesses Need Project Management", *International Journal for Research in Applied Science & Engineering Technology (IJRASET)*, Open Access, Peer Reviewed and refereed Journal, ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor:7.538, Volume 10, Issue XII, pp. 1532-1536, December 2022.
- [13] Jaiswal R.C. and Prasad Malwadkar, "Smart Wellness Program", *International Journal of Creative Research Thoughts (IJCRT)*, Open Access, Peer Reviewed and refereed Journal, indexed in Google Scholar, Microsoft Academic, CiteSeerX, Publons Indexed, Mendeley : reference manager, ISSN: 2320-2882; SJ Impact Factor:7.97, Volume 10 Issue XII, pp. a22-a29, December 2022.
- [14] Jaiswal R.C. and Nitin Dhevar, "Smart Home Surveillance System", *International Journal of Creative Research Thoughts (IJCRT)*, Open Access, Peer Reviewed and refereed Journal, indexed in Google Scholar, Microsoft Academic, CiteSeerX, Publons Indexed, Mendeley : reference manager, ISSN: 2320-2882; SJ Impact Factor:7.97, Volume 10 Issue XI, pp. d461-d468, November 2022.
- [15] Jaiswal R.C. and Zeel Patel, "A Survey Paper on Big Data Analytics in Sales and Marketing", *International Journal of Creative Research Thoughts (IJCRT)*, Open Access, Peer Reviewed and refereed Journal, indexed in Google Scholar, Microsoft Academic, CiteSeerX, Publons Indexed, Mendeley : reference manager, ISSN: 2320-2882; SJ Impact Factor:7.97, Volume 10 Issue XI, pp. c420-c428, November 2022.
- [16] Jaiswal R.C. and Niraj Sonje, "Deep Learning for Art Characterization", *International Journal of Creative Research Thoughts (IJCRT)*, Open Access, Peer Reviewed and refereed Journal, indexed in Google Scholar, Microsoft Academic, CiteSeerX, Publons Indexed, Mendeley : reference manager, ISSN: 2320-2882; SJ Impact Factor:7.97, Volume 10 Issue XI, pp. a687-a694, November 2022.
- [17] Jaiswal R.C. and Shivani Pande, "Microservices in Cloud Native Development of Application", *International Journal of Creative Research Thoughts (IJCRT)*, Open Access, Peer Reviewed and refereed Journal, Indexed in Google Scholar, Microsoft Academic, CiteSeerX, Thomson Reuters, Mendeley : reference manager, ISSN: 2320-2882; SJ Impact Factor:7.97, Volume 10 Issue X, pp. d170-d183, October 2022.
- [18] Jaiswal R. C. and Chaitanya Srushti, "Helmet Detection Using Machine Learning", *Journal of Emerging Technologies and Innovative Research (JETIR)*, Open Access, Peer Reviewed and refereed Journal, Indexed in Google Scholar, Microsoft Academic, CiteSeerX, Thomson Reuters, Mendeley : reference manager, ISSN-2349-5162, Impact Factor:7.95, Volume 9, Issue 10 pp. d10-d17, October 2022.
- [19] Jaiswal R. C. and Manasi Satpute, "Machine Learning Based Car Damage Identification", *Journal of Emerging Technologies and Innovative Research (JETIR)*, Open Access, Peer Reviewed and refereed Journal, Indexed in Google Scholar, Microsoft Academic, CiteSeerX, Thomson Reuters, Mendeley : reference manager, ISSN-2349-5162, Impact Factor:7.95, Volume 9, Issue 10 pp. b684-b690, October 2022.
- [20] Jaiswal R.C. and Aryan Bagade, "Metaverse Simulation Based on VR, Blockchain, and Reinforcement Learning Model", *International Journal for Research in Applied Science & Engineering Technology (IJRASET)*, Open Access, Peer Reviewed and refereed Journal, ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor:7.538, Volume 10 Issue X, pp. 67-75, October 2022.
- [21] Jaiswal R. C. and Atharva Agashe, "A Survey Paper on Cloud Computing and Migration to the Cloud", *Journal of Emerging Technologies and Innovative Research (JETIR)*, Open Access, Peer Reviewed and refereed Journal, Indexed in Google Scholar, Microsoft Academic, CiteSeerX, Thomson Reuters, Mendeley : reference manager, ISSN-2349-5162, Impact Factor:7.95, Volume 9, Issue 10 pp. a258-a265, October 2022.
- [22] Jaiswal R. C. and Taher Saraf, "Stock Price Prediction using Machine Learning", *Journal of Emerging Technologies and Innovative Research (JETIR)*, Open Access, Peer Reviewed and refereed Journal, Indexed in Google Scholar, Microsoft Academic, CiteSeerX, Thomson Reuters, Mendeley : reference manager, ISSN-2349-5162, Impact Factor:7.95, Volume 9, Issue 9 pp. e33-e41, September 2022.
- [23] Jaiswal R. C. and Ritik Manghani, "Pneumonia Detection using X-rays Image Preprocessing", *Journal of Emerging Technologies and Innovative Research (JETIR)*, Open Access, Peer Reviewed and refereed Journal, Indexed in Google Scholar, Microsoft Academic, CiteSeerX, Thomson Reuters, Mendeley : reference manager, ISSN-2349-5162, Impact Factor:7.95, Volume 9, Issue 9 pp. c653-c662, September 2022.

- [24] Jaiswal R. C. and Apoorva Ushire, “ Real Time Water Monitoring System Using NodeMCU ESMP8266 ”, Journal of Emerging Technologies and Innovative Research (JETIR), Open Access, Peer Reviewed and refereed Journal, Indexed in Google Scholar, Microsoft Academic, CiteSeerX, Thomson Reuters, Mendeley : reference manager, ISSN-2349-5162, Impact Factor:7.95, Volume 9, Issue 9 pp. c1-c8, September 2022.
- [25] Jaiswal R. C. and Firoz Saherawala, “ Smart Glasses ”, Journal of Emerging Technologies and Innovative Research (JETIR), Open Access, Peer Reviewed and refereed Journal, Indexed in Google Scholar, Microsoft Academic, CiteSeerX, Thomson Reuters, Mendeley : reference manager, ISSN-2349-5162, Impact Factor:7.95, Volume 9, Issue 8 pp. f393-f401, August 2022.
- [26] Jaiswal R. C. and Asawari Walkade, “ Denial of Service Detection and Mitigation ”, Journal of Emerging Technologies and Innovative Research (JETIR), Open Access, Peer Reviewed and refereed Journal, Indexed in Google Scholar, Microsoft Academic, CiteSeerX, Thomson Reuters, Mendeley : reference manager, ISSN-2349-5162, Impact Factor:7.95, Volume 9, Issue 5 pp. f108-f116, May 2022.
- [27] Jaiswal R. C. and Fiza Shaikh, “ Augmented Reality based Car Manual System ”, Journal of Emerging Technologies and Innovative Research (JETIR), Open Access, Peer Reviewed and refereed Journal, Indexed in Google Scholar, Microsoft Academic, CiteSeerX, Thomson Reuters, Mendeley : reference manager, ISSN-2349-5162, Impact Factor:7.95, Volume 9, Issue 5 pp. c326-c332, May 2022.
- [28] Jaiswal R. C. and Tejveer Pratap, “ Multiparametric Monitoring of Vital Signs in Clinical and Home Settings for Patients ”, Journal of Emerging Technologies and Innovative Research (JETIR), Open Access, Peer Reviewed and refereed Journal, Indexed in Google Scholar, Microsoft Academic, CiteSeerX, Thomson Reuters, Mendeley : reference manager, ISSN-2349-5162, Impact Factor:7.95, Volume 9, Issue 5 pp. a701-a705, May 2022.
- [29] Jaiswal R. C. and Sahil Nahar, “Recognition and Selection of Learning Styles to Personalize Courses for Students”, Journal of Emerging Technologies and Innovative Research (JETIR), Open Access, Peer Reviewed and refereed Journal, Indexed in Google Scholar, Microsoft Academic, CiteSeerX, Thomson Reuters, Mendeley : reference manager, ISSN-2349-5162, Impact Factor:7.95, Volume 9, Issue 2 pp. b235-b252, February 2022.
- [30] Jaiswal R. C. and Rushikesh Karwankar, “ Demand Forecasting for Inventory Optimization ”, Journal of Emerging Technologies and Innovative Research (JETIR), Open Access, Peer Reviewed and refereed Journal, Indexed in Google Scholar, Microsoft Academic, CiteSeerX, Thomson Reuters, Mendeley : reference manager, ISSN-2349-5162, Impact Factor:7.95, Volume 8, Issue 12 pp. 121-131, January 2022.
- [31] Jaiswal R. C. and P. Khore, “ Exo-skeleton Arm ”, Journal of Emerging Technologies and Innovative Research (JETIR), Open Access, Peer Reviewed and refereed Journal, Indexed In Google Scholar, Microsoft Academic, CiteSeerX, Thomson Reuters, Mendeley : reference manager, ISSN-2349-5162, Impact Factor:7.95, Volume 8, Issue 12 pp. 731-734, December 2021.
- [32] Jaiswal R. C. and Shreyas Nazare, “ IoT Based Home Automation System”, Journal of Emerging Technologies and Innovative Research (JETIR), Open Access, Peer Reviewed and refereed Journal, ISSN-2349-5162, Impact Factor:7.95, Volume 8, Issue 11 pp. 151-153, November 2021.
- [33] Jaiswal R. C. and Prajwal Pitlehra, “Credit Analysis Using K-Nearest Neighbours’ Model”, Journal of Emerging Technologies and Innovative Research (JETIR), Open Access, Peer Reviewed and refereed Journal, ISSN-2349-5162, Impact Factor:7.95, Volume 8, Issue 5, pp. 504-511, May 2021.
- [34] Jaiswal R. C. and Rohit Barve, “Energy Harvesting System Using Dynamo”, Journal of Emerging Technologies and Innovative Research (JETIR), Open Access, Peer Reviewed and refereed Journal, ISSN-2349-5162, Impact Factor:7.95, Volume 8, Issue 5, pp. 278-280, May 2021.
- [35] Jaiswal R. C. and Sharvari Doifode, “Virtual Assistant”, Journal of Emerging Technologies and Innovative Research (JETIR), Open Access, Peer Reviewed and refereed Journal, ISSN-2349-5162, Impact Factor:5.87, Volume 7, Issue 10, pp. 3527-3532, October 2020.
- [36] Jaiswal R. C. and Akshat Kaushik, “Automated Attendance Monitoring system using discriminative Local Binary Histograms and PostgreSQL”, Journal of Emerging Technologies and Innovative Research (JETIR), Open Access, Peer Reviewed and refereed Journal, ISSN-2349-5162, Impact Factor:5.87, Volume 7, Issue 11, pp. 80-86, November 2020.
- [37] Jaiswal R. C. and Danish khan, “Arduino based Weather Monitoring and Forecasting System using SARIMA Time-Series Forecasting”, Journal of Emerging Technologies and Innovative Research (JETIR), Open Access, Peer Reviewed and refereed Journal, ISSN-2349-5162, Impact Factor:5.87, Volume 7, Issue 11, pp. 1149-1154, November 2020.
- [38] Jaiswal R.C. and Param Jain, “Augmented Reality based Attendee Interaction at Events”, International Journal for Research in Applied Science & Engineering Technology (IJRASET), Open Access, Peer Reviewed and refereed Journal, ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor:7.429, Volume 8 Issue VI, pp. 1578-1582, June 2020.
- [39] Jaiswal R.C. and Akash Pal, “Cosmetics Application Using Computer Vision”, Journal of Emerging Technologies and Innovative Research (JETIR), Open Access, Peer Reviewed and refereed Journal, ISSN-2349-5162, Impact Factor:5.87, Volume 7, Issue 6, pp. 824-829, June 2020.
- [40] Jaiswal R.C. and Jaydeep Bhoite, “Home Renovation Using Augmented Reality”, Journal of Emerging Technologies and Innovative Research (JETIR), Open Access, Peer Reviewed and refereed Journal, ISSN-2349-5162, Impact Factor:5.87, Volume 7, Issue 6, pp. 682-686, June 2020.
- [41] Jaiswal R.C. and Aashay Pawar, “Stock Market Study Using Supervised Machine Learning”, International Journal of Innovative Science and Research Technology (IJSRT), Open Access, Peer Reviewed and refereed Journal, ISSN: 2456-2165; IC Value: 45.98; SJ Impact Factor:6.253, Volume 5 Issue I, pp. 190-193, Jan 2020.
- [42] Jaiswal R.C. and Deepali Kature, “Pillars of Object-Oriented System”, International Journal for Research in Applied Science & Engineering Technology (IJRASET), Open Access, Peer Reviewed and refereed Journal, ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor:7.177, Volume 7 Issue XI, pp. 589-591, Nov 2019.
- [43] Jaiswal R.C. and Yash Govilkar, “A Gesture Based Home Automation System”, International Journal for Research in Applied Science & Engineering Technology (IJRASET), Open Access, Peer Reviewed and refereed Journal, ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor:7.177, Volume 7 Issue XI, pp. 501-503, Nov 2019.
- [44] Jaiswal R.C. and Onkar Gagare, “Head Mounted Display”, International Journal for Research in Applied Science & Engineering Technology (IJRASET), Open Access, Peer Reviewed and refereed Journal, ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor:7.177, Volume 7 Issue XI, pp. 535-541, Nov 2019.
- [45] Jaiswal R.C. and Nehal Borole, “Autonomous Vehicle Prototype Development and Navigation using ROS”, International Journal for Research in Applied Science & Engineering Technology (IJRASET), Open Access, Peer Reviewed and refereed Journal, ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor:7.177, Volume 7 Issue XI, pp. 510-514, Nov 2019.
- [46] Jaiswal R.C. and Vaibhav Pawar, “Voice and Android Application Controlled Wheelchair”, Journal of Emerging Technologies and Innovative Research (JETIR), Open Access, Peer Reviewed and refereed Journal, ISSN-2349-5162, Volume 6, Issue 6, pp. 635-637, June 2019.

- [47] Jaiswal R.C. and Shreya Mondhe, "Waste Segregation & Tracking", International Journal for Research in Applied Science & Engineering Technology (IJRASET), Open Access, Peer Reviewed and refereed Journal, ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor:7.429, Volume 8, Issue 5, pp. 2085-2087, May 2019.
- [48] Jaiswal R.C. and Shreya Mondhe, "Stock Market Prediction Using Machine Learning & Robotic Process Automation", Journal of Emerging Technologies and Innovative Research (JETIR), Open Access, Peer Reviewed and refereed Journal, ISSN-2349-5162, Volume 6, Issue 6, pp. 926-929, February 2019.
- [49] Jaiswal R.C. and Samruddhi Sonare, "Smart Supervision Security System Using Raspberry Pi", Journal of Emerging Technologies and Innovative Research (JETIR), ISSN-2349-5162, Volume 6, Issue 4, pp. 574-579, April 2019.
- [50] Jaiswal R.C. and Manasi Jagtap, "Automatic Car Fragrance Dispensing System", International Journal of Research and Analytical Reviews (IJRAR), ISSN-2349-5138, Volume 6, Issue 1, pp. 315-319, March 2019.
- [51] Jaiswal R.C. and Sumukh Ballal, "Scalable Healthcare Sensor Network", Journal of Emerging Technologies and Innovative Research (JETIR), ISSN-2349-5162, Volume 6, Issue 2, pp. 350-354, February 2019.
- [52] Jaiswal R.C. and Samruddhi Sonare, "Multiple Camera Based Surveillance System Using Raspberry Pi", International Journal of Research and Analytical Reviews (IJRAR), ISSN-2348-1269, Volume 6, Issue 1, pp. 1635-1637, February 2019.
- [53] Jaiswal R.C. and Reha Musale, "Application of Digital Signature to Achieve Secure Transmission", International Journal for Research in Applied Science & Engineering Technology (IJRASET), ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor:6.887, Volume 7 Issue II, pp. 150-153, February 2019.
- [54] Jaiswal R.C. and Himanshu Mithawala, "Automatic Gate Monitoring System", Journal of Emerging Technologies and Innovative Research (JETIR), ISSN-2349-5162, Volume 6, Issue 1, pp. 88-94, January 2019.
- [55] Jaiswal R.C. and Bernard Lewis, "Dynamic Runway and Gate Terminal Allocation for Flights", Journal of Emerging Technologies and Innovative Research (JETIR), UGC approved Journal, ISSN-2349-5162, Volume 5, Issue 12, December 2018.
- [56] Jaiswal R.C. and Sakshi Jain, "Text Search Engine", Journal of Emerging Technologies and Innovative Research (JETIR), UGC approved Journal ISSN-2349-5162, Volume 5, Issue 11, November 2018.
- [57] Jaiswal R.C. and Arti Gurap, "Design of Different Configurations of Truncated Rectangular Microstrip Patch Antenna For 2.4 GHz And 1.6 GHz", Journal of Emerging Technologies and Innovative Research (JETIR), UGC Approved Journal, ISSN-2349-5162, Volume 5, Issue 10, October 2018.
- [58] Jaiswal R.C. and Atharva Mahindrakar, "Mine Warfare and Surveillance Rover", International Journal for Research in Applied Science & Engineering Technology (IJRASET), ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor:6.887, Volume 6 Issue III, March 2018.
- [59] Jaiswal R.C. and Saloni Takawale "Multi-Client Server Communication Enhancement through Intranet", International Journal for Research in Applied Science & Engineering Technology (IJRASET), ISSN: 2321-9653; UGC approved Journal, IC Value: 45.98; SJ Impact Factor :6.887, Volume 6 Issue 1, January 2018.
- [60] Jaiswal R.C. and Nikita Kakade, "Skin disease detection and classification using Image Processing Techniques", Journal of Emerging Technologies and Innovative Research (JETIR), ISSN-2349-5162; UGC approved Journal:5.87, Volume 4, Issue 12, December 2017.
- [61] Jaiswal R.C. and Nikita Kakade, "OMR Sheet Evaluation Using Image Processing", Journal of Emerging Technologies and Innovative Research (JETIR), ISSN-2349-5162; UGC approved Journal:5.87, Volume 4, Issue 12, December 2017.
- [62] Jaiswal R.C. and Swapnil Shah, "Customer Decision Support System", International Research Journal of Engineering and Technology (IRJET), e-ISSN: 2395-0056; p-ISSN: 2395-0072; UGC approved Journal, SJ Impact Factor:5.181, Volume: 04 Issue: 10 | Oct -2017.
- [63] Jaiswal R.C. and Ketan Deshpande, "IOT Based Smart City: Weather, Traffic and Pollution Monitoring System", International Research Journal of Engineering and Technology (IRJET), e-ISSN: 2395-0056; p-ISSN: 2395-0072; UGC approved Journal, SJ Impact Factor:5.181, Volume: 04 Issue: 10 | Oct -2017.
- [64] Jaiswal R.C. and Vipul Phulphagar, "Arduino Controlled Weight Monitoring With Dashboard Analysis", International Journal for Research in Applied Science & Engineering Technology (IJRASET), ISSN: 2321-9653; UGC approved Journal, IC Value: 45.98; SJ Impact Factor:6.887, Volume 5 Issue XI November 2017.
- [65] Jaiswal R.C. and Siddhant Sribhashyam, "Comparison of Routing Algorithms using Riverbed Modeler", International Journal of Advanced Research in Computer and Communication Engineering (IJARCCE), ISSN: (Online) 2278-1021; (online) 2278-1021 ISSN (Print) 2319 5940; UGC approved Journal, Impact Factor 5.947 Vol. 6, Issue 6, June 2017.





10.22214/IJRASET



45.98



IMPACT FACTOR:  
7.129



IMPACT FACTOR:  
7.429



# INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089  (24\*7 Support on Whatsapp)