



The Effect of Green Human Resource Management on Environmental Green Innovation Performance

Dr. Malla Jogarao

Assistant Professor, School of Maritime Management, Indian Maritime university,
Visakhapatnam

Manoj Kumar Behera

Assistant Professor, Department of Management, Suddhananda Engineering and Research
Centre, Bhubaneswar, Odisha

Dr S T Naidu

Associate Professor (Law), School of Law, Vel Tech University, Avadi, Chennai-TN.

Dr Tattikota Hemalata

Assistant Professor, AIIMS, Visakhapatnam

Silvia Ruiz-Imbat

Research Professor, Department of Investigation, Higher Technological Institute Customs
Lyceum, Ibarra, Ecuador

Ana Lita-Portilla

Research Professor, Department of Investigation, Higher Technological Institute Customs
Lyceum, Ibarra, Ecuador

doi: 10.48047/ecb/2023.12.si6.81

Abstract :

Artificial intelligence (AI) has significantly impacted human resource management (HRM) practices and operations. Nowadays, every company is moving forward by constructing innovative and ecologically friendly firms; Green HRM plays a critical role in integrating corporate environmental management with human resource management.

AI has emerged to protect natural resources, assuring environmental sustainability while boosting business and increasing productivity. In this way, Artificial intelligence is an important part of HR Technology with the potential to eliminate or improve the performance of green hr practices. Besides, companies can use artificial intelligence for applicant screenings, job involvement, employee re-engagement, and career advancement with little resource use, reducing the ecological footprint. Green management refers to using human resource policies that encourage the optimal use of green resources inside company premises and enhance environmental sustainability. AI assists businesses in executing any duty more successfully and efficiently.

AI reasoning is assisting businesses in coordinative unique frameworks and additionally providing a phase that can boost all operations of Hr Functions from recruits, screening, mentoring, advancement, compensation, and reward systems is not a single entity to work for the company and assisting businesses to go sustainable in these operations. In addition, GHRM is a subset of the more significant notion of Social Responsibility. As a result, the firm should be socially responsible by acting in ways that benefit the public and be accountable for their actions that affect society and ultimately contribute to a sustainable environment and performance. Therefore, the impact of GHRM can significantly improve environmental sustainability and social responsibility.

The study will examine the rise of artificial intelligence in the green HRM process and socially responsible and environmental sustainability through secondary data. The study also conducts an online survey to determine the adaptability of AI in corporations.

Keywords: *Artificial Intelligence; Green Human Resource Management (GHRM); Socially responsible; Environmental sustainability; HRM Practices*

1. Introduction

1.1. Green Management

An office setting that is socially capable, resource-efficient, and open to the environment is known as a "green association." Various definitions exist for "green management" in the context of environmental composition, all of which frequently seek to explain the expectation for balance between organizational growth for abundance plan and security of the common habitat with the goal of future making success. Prior to now, associations and its investors used to evaluate the financial performance of the organization in terms of undertaking corporate accomplishment. However, this is no longer reasonable; instead, productive and financial results should be pursued by minimizing environmental impressions and further developing attention to social and environmental stages.



Figure 1: Green Human Resource Management

1.2 Challenges Green HRM in the Organization

Any association's HR department is responsible for outlining the plans intended to create the environmentally friendly planned representatives. The HR division encounters a variety of challenges throughout the process of green human resource management. Specific challenges face the association's effective Green principles and practices. Every employee has their own unique discernment, demeanor, and accept, and they all behave accordingly.

- Establishing the crucial awareness of the climate among associations is the main critical test. The need to instill a green mindset in people at all stages of life is growing. The climate management framework shouldn't be implemented in an exclusive location or on a "as and when required" basis.
- Another crucial test that the associations are looking at in this cycle is increasing green awareness within the workforce and preparing the representatives to embrace a green balance between entertaining and serious activities. The organization has to raise awareness of the problem among its members and promote the adoption of ecologically friendly behaviors.
- Finding employees with green aptitude is a really challenging undertaking. Finding inventive and creative employees through green enlistment is a key HR issue.

(IT) has been intensely effecting human resource management (HRM) practices and processes

(IT) has been intensely generating human resource management (HRM) practices and processes

(IT) has been intensely developing human resource management (HRM) practices and processes

(IT) has been intensely growing human resource management (HRM) practices and processes

(IT) has been intensely growing human resource management (HRM) practices and processes

The concept of Green HRM has gained traction across the globe. Its significance varies from personnel to business. It aims to increase energy reserves or minimize pollution caused by industry and overall lifestyle choices (**Ababneh, 2021**). The main goal of greening is to reduce the environmental impact of energy usage and pollutants. Implementing green technology as part of a corporate strategy can help businesses succeed in an ever-changing environment. Organizations will undoubtedly play a crucial role in the battle against climate change. With both the assistance of management and staff, HRM will satisfy the company's commitment to green

practices. The role of green HRM could become the executor of sustainability objectives that will help achieve business goals.

Green HRM is a new subject in today's World. Strategic Green HRM — incorporating environment protection into HRM – is becoming increasingly important (**Agyabeng-Mensah, et al., 2020**). A company's human resource function can promote a complete strategy to foster a culture of sustainability. Currently, it is seen that corporate organizations use environmental management systems that serve as a tool to create competitive advantages while also assisting within the control of ecological repercussions. Companies are already recognizing and developing social consciousness for Green HRM policy and personal business accountability. The HRM functions promote sustainable development within the organization by implementing Green HRM practices and regulations that represent 'Eco-focuses.' Green HRM encompasses all HRM processes like selection and recruiting, learning & support, remuneration and incentives, assessment methods, and condition of employment, among others. Green HRM methods can attract and retain good employees in the firm and promote and lower replacement costs (**Ahmad, 2015**). Sustainable Green HRM strategies and policies encourage the long-term utilization of wealth in the firm while increasing staff confidence and pride.

This report analyzes the AI-supported Green HRM practices for socially responsible and environmental sustainability. Develop approaches for a sustainable company and better green HRM practices with the help of AI within an organization. Green HRM with better AI provides employee job satisfaction and good beingness and people. Policies included in Green HRM are compensation and management reward, security of employment, and teamwork for better productivity.

This research paper also explores the significance of Green human resource management. Green HRM employs human resource management approaches to promote the long-term use of existing resources inside businesses, most of which are environmentally friendly. Green HRM aids in the execution of green human resource strategies such as strategy, evaluation, recruiting, learning & support, and remuneration, among others. The green HR or people management function has durability in this green world and how individuals and talent development interface with the people and customers, Governments, subcontractors, and stockholders all become equal employees.

2. Purpose of Research

Corporations are under cumulative compression to decrease carbon emissions, lessen waste, and become much more accountable in their operations due to global warming (**Alzyoud,**). In light of this, researchers contend that administrative HR practices have a important probable for influencing human behavior. As a result, considering using AI, many corporations are reaping the benefits of this cutting-edge technology. As a current research trend, green human resource management (GHRM) is critical to companies' long-term development goals. However, there is

currently a study deficit in the classification and incorporation of GHRM-related knowledge to provide precise future guidelines.

As a result, this paper aims to undertake a thorough literature review on AI-supported Green HRM practices for socially responsible and sustainable development. This research helps develop techniques that aid in establishing a greener way through green Hr activities, with a focus on the economic cooperation of building a solid responsibility to society for both the company's perspective and the community. In addition, the report provides insights on using technology to transform successful HR into sustainable HR.

3. Objectives of the Research

The primary goal of this research is to:

- Discuss several green practices that can be implemented to create a green workplace.
- Provide readers with a basic understanding of green HRM.
- How does AI support GHRM

4. Literature review

• Artificial Intelligence

Chaudhary, (2018) states Emerging technology like artificial intelligence is estimated to leverage the accessibility of big data to better the organization to operate them. Artificial intelligence helps many organizations to enhance their productivity. **Cheema & Javed, (2017)** argues that AI is mainly dependent on gathering, using, and analyzing large amounts of data. According to **Ahmad, S. (2015)**, Information is required in Intelligent machines knowing how people think and feel, which speeds up their learning experience. It is iterative: more and more data is analyzed; the more the data the network is given, the more it understands, and the more effective it eventually develops. According to the **DEVI, (2018)**, AI's advancement was previously hampered by: Green human resource management. The author finishes by stating that, whereas the first phase of big data was really about speed and agility, the next one will be about harnessing the potential of Machine learning and artificial intelligence to create commercial value at scale. The ethical and societal implications of AI may be studied from the human perspective and the AI perspective. Human resource management may face both possibilities and problems due to artificial intelligence.

• Green HRM

This review begins with discussing the definition and understanding of green HRM. Green HRM refers to incorporating sustainable corporate development into human resources management, as per the author. They also mentioned that green HRM refers to the human resource components of sustainable development. According to **Garg, Srivastav & Gupta, (2018)**, distinguished practices in recruiting, personnel management and assessment, learning & support, employee relationships, and compensation and incentive are viewed as powerful instruments for integrating personnel with an organization's environmental policy. As per to the **Ghouri, et al., (2020)**, Green HRM is defined as the "greening" of operational mechanisms of HRM, including job

definition and analytics, employing, screening, retraining, performance appraisal, and incentives. The degree to which human resource management techniques have been greened about organizational and competitiveness characteristics of HRM. Green HRM is defined as "all actions associated in the creation, deployment, and continuing maintenance of the facility that attempts to make a firm's workers green." It is the branch of human resource management concerned with changing ordinary personnel into green workers to meet the organization's sustainability requirements and, ultimately, to contribute meaningfully to environmental protection. It consists of policies, procedures, and processes that enable an organization's workers to become sustainable for the benefit of the individual, community, the global ecosystems, and the company." In terms of the preceding definitions, the most recent definition gives a complete sense of information of what green HRM is now in the framework of an organizational environment.

Human resource management practices are the basic human resource programs, procedures, and strategies applied in an organization's business unit. Green HRM practices, on the other hand, are indeed the real green HRM programs, systems, and processes that are adopted in organizations in terms of reducing negative environmental impacts or improving environmentally preferable products states **Haddock-Millar, Sanyal & Müller-Camen, (2016)**. The overarching goal of green HRM practices is to improve the organization's long-term social and ecological performance.

Environmental sustainability and social responsibility of green HRM

HR plays a significant role in firms that implement a sustainability plan, whether commercial, legal, or ethical (**Labella-Fernández & Martínez-del-Río, 2019**). The HR department should assist in the formulation & achievement of ecological and sustainability goals, all while reconciling these goals with standard finance success indicators. The HR function may collaborate in establishing what is required or attainable when developing company values and a sustainability plan. At the same time, HR could play a vital role in ensuring that all workers continuously enforce the strategic plan across the organization.

Sustainability in human resource management (HRM) uses HR techniques to develop personnel with the confidence, ethics, abilities, and incentive to produce a successful triple bottom line. Socially responsible hiring methods assist firms in attracting, developing, and managing people while also considering employees as assets. Social, environmental responsibility analyses the concern of workers, environment, and revenue that contribute to long-term competitive edge. In the views of **Luu, (2018)** Emerging socially satisfactory and enduring employment strategies enable firms to address current requirements without endangering their potential to fulfil future requirements. Sustainability employment practices have tactical consequences for the business, and utilizing environmental destruction has long-term consequences.

When circumstances are tight, using unsustainable employment practices hampers achievement in better times — employment practice verdicts have an enduring influence. Three significant aspects of the treatment of employees are studied using a paradigm that compares socially conscious methods with relatively brief; unsustainable practices: recruiting, training, and

managing people. Business examples highlight the difficulties in establishing a long-term supply chain in hiring practices.

5. Methodology

The research is mainly based on secondary data. A literature survey on the issue was gathered from various databases, blogs, and other readily available sources. A thorough review of the collected literature was conducted. This study adds qualitative indication to determine and clarify the association between the atmosphere, HRM functions, and employee satisfaction practices. This entails identifying and investigating the procedures involved in including the employees in environmental protection. Further, an online survey is being performed in which many employees have participated.

Artificial intelligence consists of technology that includes computers and collects data (O'Donohue & Torugsa, 2016). In HRM, artificial intelligence can be applied to better the organization's HRM efficiency to analyze its sustainability and social responsibility. Below is a given division where AI methods to support HRM are -

Recruitment and onboarding: This recruitment process is better for the organization. AI may be used to support both the acquisition business and the job applicants throughout the recruitment procedure. AI technology, for instance, may modernize application process by developing more user-friendly applications that a job prospect is much more probable to comprehensive, plummeting the number of rejected form submissions.

Internal mobility: better performance in the organization with the help of artificial intelligence can boost internal mobility. Human resource firms may now analyse employee engagement and satisfaction more efficiently than ever before, thanks to personalised feedback surveys and worker recognition programmes. Given the significance of recognizing employees' general requests, this is incredibly useful; nevertheless, there are some substantial organisational benefits to possessing this information as well.

Automation of administrative tasks: The same as other businesses and views, one of the key benefits of adopting artificial intelligence into good human resource management operations will be the same. Administration duties that are easily repeated can be decreased via automation, Hr managers have much more time to add to company strategic planning. As a result, the HR department can become a strategic function inside their enterprises.

Operations: There are several chat rooms and discussion platforms available to solve many staff difficulties, and different applications have been established to give immediate assistance to both workers and clients. Technology currently handles almost every element of human resource management.

Performance appraisal: Instead of analysing an employee's performance quarterly or semi-annually, advanced technology, data, and analytics can help. Estimating is a continuous process that should not be performed simply once every year.

GHRM is concerned with the relationship between strategy and HRM, whereas Sustainable HRM is focused only on the connection between sustainability and HRM (Pham, Hoang, &

Phan, 2019). These are many beginning places for evaluating HRM theory, procedures, and consequences. A few results, philosophies, and methods for SHRM and Sustainability HRM will be comparable. Yet, focusing on the link between sustainability and HRM results complicates matters even more.

HRM social responsibility includes job satisfaction and prevention in health and safety of the workers by which organizations can enhance their productivity and build trust among their workers and customers to gain more profitability. Communication and transparency are also factoring of HRM's social responsibility within an organization. Engaging in such activity help organization to make a long-term profit, improve the quality of their brand, and make brand recognition among people (Zhao, & Huang, 2022).

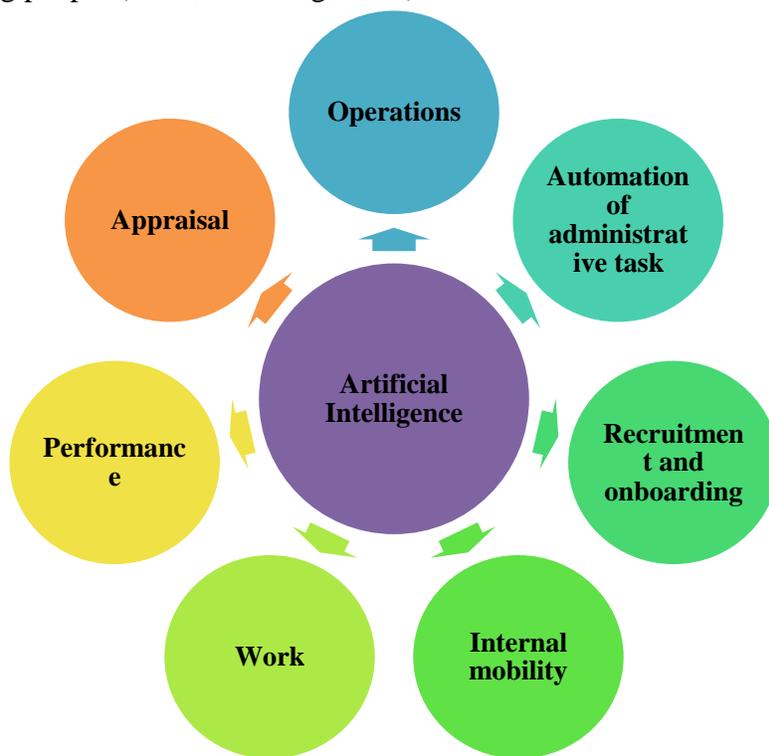


Figure 2: Model presentation support of AI to Green HRM

6. Finding

It has been found from this research over the last two decades of this century; there has been general agreement on the necessity for a proper and efficient management program worldwide. This initiative was begun because the negative impacts of various contaminants, with industrial effluents being the main culprit, have been eroding and diminishing the national environment at an alarming rate. According to the current survey, Green HRM predicts that more over 22% of HR compliance is achieved. It is estimated that when technology is used, the possibility of blunder is condensed to a bare minutest, but the probability of human errors increases. Furthermore, this method has reduced the burden of typical recruits by 55% to 70%, making

systems more convenient and time-saving. Furthermore, this technology has taken over 75% of the HR helpline and is seeking to turn it to 100% in a short period of time.

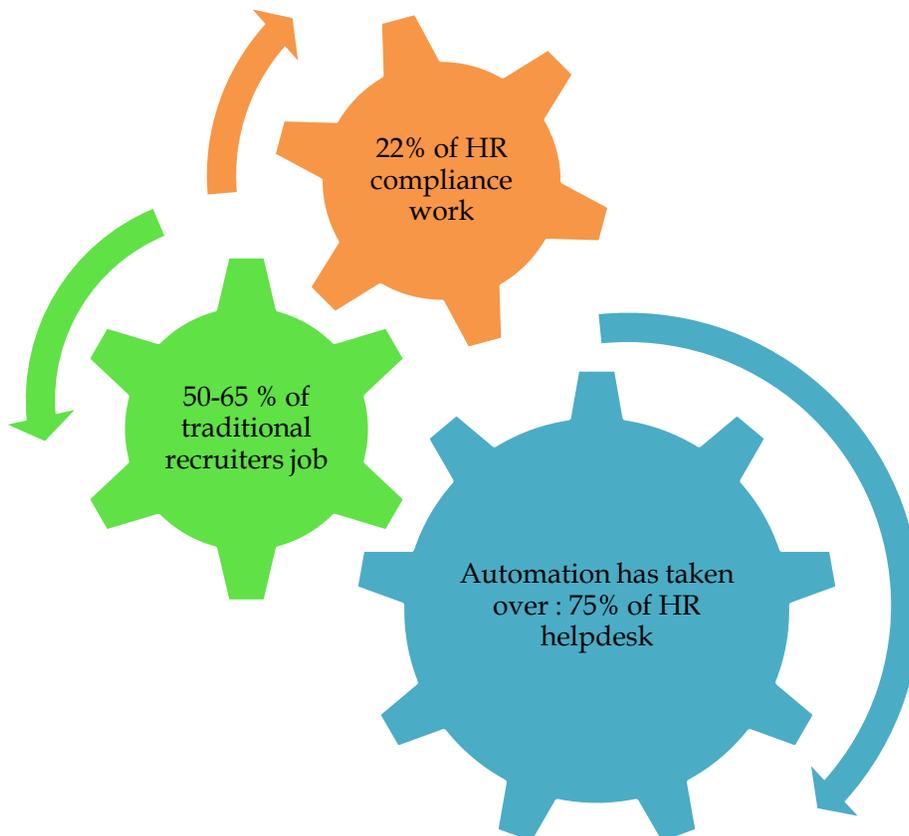


Figure 3: The findings of a survey on the adoption of AI in corporations

Consequently, these have a ton of potential, as Green HRM was formed. As a result of different modifications in HR policies, it is now widely accepted in the market.

Human resources are an organization's most vital treasure, and they play a critical role in employee management. However, due to the recent rising trend of objectives that are clear on greening the organization, modern HR executives have been tasked with the increased responsibility of applying the Green HR concept into the mission and vision statement and Human resource policy.

In this regard, studies that have looked at the long-term impact of GHRM systems rather than behavioral patterns might be instrumental. These studies can assist organizations in reducing environmental degradation, being healthier both substantially and monetarily, and making the world a healthier and greener place to live. Finally, we emphasize that HR plays a critical role in implementing GHRM policies and practices. Aside from that, they play an essential role in the hiring staff who may be more responsible for green company practices, so indirectly protecting

the Earth. Last but not least, human resources have an enormous potential to participate in the business's going green and play a vital role in inspiring, enabling, and encouraging people.

7. Conclusion

This report concludes the information about AI-supported Green HRM practices for socially responsible and environmental sustainability. Organizations all over the globe are seeking to incorporate GHRM principles to gain a sustainable competitive edge in the corporate sector. Complete acceptance and incorporation of GHRM in the company are not tricky, but it does need a shift in attitude toward current Hr methods on both management and staff. Several HR experts concluded that green efforts were an essential component of total corporate responsibility during the procedure. As a result, organizations are more mindful of their environmental obligations. Businesses are lowering their reliance on precious resources and lessening the strain on the Earth by using them, but they are also optimizing their operating costs.

The usage of GHRM helps businesses minimize costs while investing in environmental improvements. Organizations that recruit individuals intending to enhance ecological sustainability have improved customer and, as just a result, profitability. Companies that can align procedures and human resource aspects with environment protection aims will be effective in their organization's path towards sustainable development with the help of AI. Organizations that wish to enhance their sustainability impact should invest heavily in environmental training for their employees. Training is a critical action in waste management (both decrease and protection). It occurs when firms teach employees how to conduct a waste analysis of particular work environments—the application of GHRM assists in developing and developing the environment and provides organizations with a competitive advantage.

The study outcomes demonstrated that GHRM practices significantly influence structural sustainability. Furthermore, this study examines the distinct mediation role of ecological and human performance between the GHRM process and corporate sustainability. The conclusions of the paper back up the suggested intervention model. The GHRM is a novel idea in developing nations, and further research is required to recognise sustainability concerns and examine the effects of GHRM performs in organizations. Nevertheless, GHRM is critical for every business and its employees since it sets the firm's emphasis on external CSR efforts.

References

- Ababneh, O. M. A. (2021). How do green HRM practices affect employees' green behaviors? The role of employee engagement and personality attributes. *Journal of Environmental Planning and Management*, 64(7), 1204-1226.
- Agyabeng-Mensah, Y., Ahenkorah, E., Afum, E., Agyemang, A. N., Agnikpe, C., & Rogers, F. (2020). Examining the influence of internal green supply chain practices, green human resource management and supply chain environmental cooperation on firm performance. *Supply Chain Management: An International Journal*.

Ahmad, S. (2015). Green human resource management: Policies and practices. *Cogent business & management*, 2(1), 1030817.

Alzyoud, A. A. Y. THE IMPACT OF GREEN HUMAN RESOURCE MANAGEMENT PRACTICES AND KNOWLEDGE SHARING ON SUSTAINABLE PERFORMANCE: A CONCEPTUAL FRAMEWORK.

Chaudhary, R. (2018, December). Can green human resource management attract young talent? An empirical analysis. In *Evidence-based HRM: A global forum for empirical scholarship*. Emerald Publishing Limited.

Cheema, S., & Javed, F. (2017). The effects of corporate social responsibility toward green human resource management: The mediating role of sustainable environment. *Cogent Business & Management*, 4(1), 1310012.

DEVI, J. K. (2018). Influence of Green HRM Practices on Employees Performance Level—A study with reference to literature review. *IJRAR-International Journal of Research and Analytical Reviews (IJRAR)*, 5(3), 329-332.

Garg, V., Srivastav, S., & Gupta, A. (2018, October). Application of artificial intelligence for sustaining green human resource management. In *2018 International Conference on Automation and Computational Engineering (ICACE)* (pp. 113-116). IEEE.

Ghouri, A. M., Mani, V., Khan, M. R., Khan, N. R., & Srivastava, A. P. (2020). Enhancing business performance through green human resource management practices: an empirical evidence from Malaysian manufacturing industry. *International Journal of productivity and Performance management*.

Haddock-Millar, J., Sanyal, C., & Müller-Camen, M. (2016). Green human resource management: a comparative qualitative case study of a United States multinational corporation. *The International Journal of Human Resource Management*, 27(2), 192-211.

Labella-Fernández, A., & Martínez-del-Río, J. (2019). Green Human Resource Management. Responsible Consumption and Production. Encyclopedia of the UN Sustainable Development Goals,

Luu, T. T. (2018). Employees' green recovery performance: the roles of green HR practices and serving culture. *Journal of Sustainable Tourism*, 26(8), 1308-1324.

O'Donohue, W., & Torugsa, N. (2016). The moderating effect of 'Green'HRM on the association between proactive environmental management and financial performance in small firms. *The International Journal of Human Resource Management*, 27(2), 239-261.

Pham, N. T., Hoang, H. T., & Phan, Q. P. T. (2019). Green human resource management: a comprehensive review and future research agenda. *International Journal of Manpower*.

Zhao, W., & Huang, L. (2022). The impact of green transformational leadership, green HRM, green innovation and organizational support on the sustainable business performance: evidence from China. *Economic Research-Ekonomska Istraživanja*, 1-21. Anurag Shrivastava, Midhun Chakkaravathy, Mohd Asif Shah, A Novel Approach Using Learning Algorithm for Parkinson's Disease Detection with Handwritten Sketches', *Cybernetics and Systems*, Taylor & Francis

Ajay Reddy Yeruva, Esraa Saleh Alomari, S. Rashmi, Anurag Shrivastava, A Secure Machine Learning-Based Optimal Routing in *Ad Hoc* Networks for Classifying and Predicting Vulnerabilities, *Cybernetics and Systems*, Taylor & Francis

Anurag Shrivastava, SJ Suji Prasad, Ajay Reddy Yeruva, P Mani, Pooja Nagpal, Abhay Chaturvedi, IoT Based RFID Attendance Monitoring System of Students using Arduino ESP8266 & Adafruit.io on Defined Area, Cybernetics and Systems, Taylor & Francis

Charanjeet Singh, Syed Asif Basha, A Vinay Bhushan, Mithra Venkatesan, Abhay Chaturvedi, Anurag Shrivastava, A Secure IoT Based Wireless Sensor Network Data Aggregation and Dissemination System, Cybernetics and Systems, Taylor & Francis

Anurag Shrivastava, Midhun Chakkaravathy, Mohd Asif Shah, A Comprehensive Analysis of Machine Learning Techniques in Biomedical Image Processing Using Convolutional Neural Network, 2022 5th International Conference on Contemporary Computing and Informatics (IC3I)