

Call for Proposals
Research in Human Resource Management

SPECIAL TOPIC: *Human Resource Management and Engineering*

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Background

Too often, researchers collapse into silos that impair the cross-fertilization of ideas. The goal of this research volume is to break down these silos and promote the transfer of research insights between engineering and human resource management.

Ironically, human resource scholarship can be traced back to the early days of scientific management, an engineering approach known as Taylorism. This early research focused on efficiency maximization, best practices for performing work, standardization of jobs, time and motion studies, and incentive pay (Kanigel 1997; Taylor 1911; Wren & Bedeian 2009). However, this research was questioned by studies conducted at the Western Electric Company's Hawthorne works (Mayo 1933; Roethlisberger & Dickson 1939), highlighting the importance of employee attitudes, group dynamics, and social factors influencing productivity. This shift marked the beginning of significant research in industrial and organizational psychology, much of which moved away from engineering. Nevertheless, a few strands of engineering have continued to overlap with human resource management, including ergonomics, human factors, and job design (Khan, 2020; Neuman & Dul, 2020; Parker et al., 2017).

However, in recent years, the integration of engineering and human resource management has once again emerged in exciting and new ways across several areas. For example:

- **Civil Engineering:** Research has explored the integration of project management systems with human resource management to optimize workforce allocation in large-scale infrastructure projects.
- **Construction Management:** Studies have examined how workforce training and safety protocols in construction sites are influenced by engineering standards and how HRM practices can minimize accidents and enhance productivity.
- **Industrial and Manufacturing Engineering:** Research on lean manufacturing and Six Sigma methodologies has shown that efficient production systems depend heavily on human resource factors, including team training, motivation, and job design.
- **Electrical Engineering:** The development of smart grids and automation has raised questions about workforce planning and the reskilling of employees to adapt to technological advancements.

- **Robotics and Automation Engineering:** Robotics and Robotic Process Automation (RPA) has generated interest in how it affects human job roles, necessitating a nuanced understanding of workforce integration strategies from both RPA and HRM perspectives.
- **Biomedical Engineering:** Research has highlighted the importance of interdisciplinary collaboration between biomedical engineers and HR professionals to address issues such as ethical workforce management in clinical environments.
- **Computer Engineering:** The emergence of artificial intelligence, machine learning, and natural language processing applications has prompted questions about workforce planning, employee data privacy, and HR strategies for managing tech-savvy talent pools.

However, these are just examples. Other types of engineering, including Aerospace, Architectural, Automotive, Materials, Mining, Systems, Transportation, etc., could significantly overlap with human resource management. Innovative combinations of human resource management and engineering perspectives from any field are desired.

Yet, Research in Human Resource Management is a research series in which papers should contribute to the advancement of research in Human Resources as well. Typically, accepted papers are literature reviews or conceptual papers that make theoretical contributions. Papers should focus on the Human Resources and Engineering literature with theoretical insights and directions for future research.

Theme of this Special Issue

This volume will focus on research that lies at the intersection of human resource management and various engineering disciplines. It aims to explore how HR can be integrated into engineering processes to advance research, practice, and education with strong theoretical foundations. The chapters will address the transfer of knowledge between these two disciplines, as well as how educational programs can prepare graduates for diverse careers in engineering, business, education, and policy.

Illustrative examples of research topics may include, but are not limited to, the following:

- **Civil Engineering:** When working on large-scale civil engineering projects, how might HRM practices enhance safety and productivity on construction sites (Oraee et al., 2017)?
- **Electrical Engineering:** How can HR specialists and electrical engineers work together to anticipate changes in labor needs as smart grid technology proliferates (Department of Energy, 2022)?
- **Industrial and Manufacturing Engineering:** How can HRM practices improve employee performance and engagement when implementing Six Sigma and lean manufacturing (Gao et al, 2014)?

- **Biomedical Engineering:** How can HR specialists resolve disputes between engineers and healthcare professionals, and what are the HR difficulties in leading multidisciplinary teams on biomedical projects (Schilling & Hill, 1998)?
 - **Automation and Robotics:** How can businesses successfully incorporate robots into the workforce without unduly disrupting human workers? What part can HR specialists play in making this happen (West, 2018)?
 - **Computer Engineering:** How can HRM help with the difficulties in finding, keeping, and growing a workforce with cybersecurity, machine learning, and artificial intelligence skills (Bessen, 2018)?
 - **Project Management:** How can HR help to guarantee that engineers working as project managers have the abilities to lead varied teams on international projects (Project Management Institute, 2020)?
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Manuscripts are invited that address, but are not limited to, other types of questions listed below:

- In what ways and at what times can we enhance the way humans and robots collaborate in different engineering domains?
- What are the implications of these changes for human resources, and when and how should humans be replaced by RPA?
- Which HR tactics are required to handle the increasingly complex interdisciplinary teams, especially in computer and biomedical engineering?
- How can HRM procedures help workers in engineering domains that are quickly embracing new technology, such as robotics or renewable energy systems, with their ongoing education and retraining?
- What are the difficulties in workforce planning in sectors that are heavily automating, and how can HR solve these difficulties to guarantee that workers have a smooth transition?
- How can HRM handle the issues with physical and mental health that result from integrating cutting-edge technologies in engineering settings, such as manufacturing or the biomedical industries?
- How can engineering companies develop HR policies that are inclusive and encourage diversity in technical professions like civil and electrical engineering that have historically been dominated by particular demographics?
- In settings like industrial or automated logistics systems, where people and robots work together on the same duties, how might performance management systems be modified?

- What part do human resources play in promoting sustainability initiatives in engineering domains such as civil engineering, where projects might incorporate eco-friendly designs or green technologies?
 - In what ways can human resource departments encourage innovative problem-solving and teamwork in engineering settings to promote innovation?
 - How can HR specialists handle the moral dilemmas around the use and monitoring of employee data in technical fields that largely rely on artificial intelligence, automation, and data analytics?
 - What measures can HR teams take to guarantee that engineers engaged in intricate projects like biomedical devices or electrical grids receive appropriate recognition and incentives for their individual and collaborative efforts?
 - How can engineers and human resource specialists work together to create efficient onboarding and ongoing development initiatives that stay up to date with the swift progress of technology?
 - How can HR help engineers develop their leadership abilities, especially those who go on to work in project management positions that need both technical and people management expertise?
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SUBMISSION AND REVIEW PROCESS

Authors can submit proposals between now and **October 31, 2025** to the Issue Editor, Richard Posthuma, at rposthuma@utep.edu. Proposals should detail the content and contributions of the full article. Proposals should be double-spaced and include no more than five pages of text. References, tables, and appendices do not count against this page limit. Please do not send complete papers, although you may note in the proposal that you have a draft. If you have questions about a potential submission, please contact Richard Posthuma via email.

Relevant Dates

Proposals Due: **October 31, 2025**
Final Decisions on Proposals: **December 1, 2025**
Full Draft of Paper Due: **August 31, 2026**
Feedback to Authors: **November 14, 2026**
Final Paper Submission: **February 1, 2027**

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