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Intelligent Human Centered Computing

Proceedings of HUMAN 2023

Editors: Siddhartha Bhattacharyya, Jyoti Sekhar Banerjee, Debashis De, Mufti Mahmud

Provides original works presented at HUMAN 2023 held in Kolkata, India

Provides research works in the field of human centered computing and its applications

Serves as a reference for researchers and practitioners in academia and industry

Part of the book series: Springer Tracts in Human-Centered Computing (STHCC)

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Sections

Table of contents (33 papers)

Search within book

← Previous Page 2 of 2 Next →

← Previous Page 2 of 2 Next →

Back to top ↑

Other Volumes

1. Intelligent Human Centered Computing

Back to top ↑

About this book

This book features high-quality research papers presented at the First Doctoral Symposium on Human Centered Computing (HUMAN 2023), jointly organized by Computer Society of India, Kolkata Chapter and Techno India University, West Bengal, on February 25, 2023. This book discusses the topics of modern human centered computing and its applications. The book showcases the fusion of human sciences (social and cognitive) with computer science (human–computer interaction, signal processing, machine learning, and ubiquitous computing).

Back to top ↑

Keywords

Human Centered Computing

Machine Learning for Life **Social IoT**

Ubiquitous Computing

Explainable Machine Learning

Mobile Systems

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Back to top ↑

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Back to top ↑

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Back to top ↑

Bibliographic Information

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Topics

Computational Intelligence, Computer and Information Systems Applications, Machine Learning

Back to top ↑

Doctoral Symposium on Human Centered Computing

Human 2023: **Intelligent Human Centered Computing** pp 223–234

Performance Analysis of Professional Higher Education Programmes Driven by Students Perception: A Latent Variable Computation Model for Industry 5.0

Bhaswati Roy, Sandip Mukherjee, Niloy Kumar Bhattacherjee, Sayanti Samanta & Subir Gupta

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Abstract

Complexity is prevalent in contemporary culture. In the not-too-distant future, as Industry 5.0 takes hold, people will encounter higher difficulties in accomplishing jobs. To produce more precise, user-

friendly, and resource-efficient solutions, human inventiveness and intelligent machines will astonishingly converge here. This transition envisages meeting both production goals of industries while also keeping the planet's biodiversity in good shape. Key aspects of Industry 5.0, like the creation of new types of jobs, the need for new types of skills, and the rapid development of technology, are getting far too complicated. The digital revolution can help developing these skills in students. This paper investigates the extent to which such primary proficiency parameters (e.g. motivational, intellectual, social and emotional, with one/more sub-parameters in each area) are perceived to have evolved in preparation for work in the Industry 5.0 era using data collected from 198 students. The raw data are subjected to a battery of one-sample normality tests. Then the main components are extracted, and the factor loadings are analyzed in order to determine how students in these programs value various parts of their education. The findings are summarized in accordance with the conceptual framework and overall conclusions of the study.

Keywords

Industry 5.0 **latent variable extraction**

performance analysis **professional education**

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