4th International Conference on Innovation in Engineering and Vocational Education (ICIEVE 2021)

Emerging Innovations in Engineering and Vocational Education in a Post-pandemic Era

Advances in Social Science, Education and Humanities Research Volume 651

Online
13 November 2021

Editors:

Ade Gafar Abdullah
Isma Widiaty
Ari Arifin Danuwijaya
Cep Ubad Abdullah

ISBN: 978-1-7138-4531-7
# TABLE OF CONTENTS

Investment and Export of Micro, Small and Medium Enterprise Products in the Age of Digital Economy ................................................................. 1  
*Kariyoto*

Approaches to Training People with Disability in Mainstream Vocational Training Centers ................................................................. 5  
*Tri Setiyarini, Ade Gafar Abdullah*

Comparative Study of Students’ Career Adaptability in Computer and Network Engineering with Welding Engineering .................................................................................................................. 12  
*Danis Rizki Swastika, Sudjani*

Work Family Conflict on Female Teachers in the Time of the Covid-19 Pandemic (A Systematic Review) ................................................................. 17  
*Alvina Fadila Maulida, Isma Widiaty*

A Systematic Literature Review of the School to Work Transition in Vocational School ........................................................................................................ 21  
*Rudi Haryadi, Ade Gafar Abdullah, Isma Widiaty, Eri Subekti*

Challenges of Vocational Teachers in Student-Teacher Interaction in Synchronous Online Learning in Indonesia .................................................................................................................. 26  
*Maulana Noor Fajri Al Hajar, Ade Gafar Abdullah*

How Important Energy Awareness in Vocational Education to Support Energy Transition ........................................................................................................ 32  
*Isis Rahmania Putri, Agus Setiawan*

Vocational Students Learning Difficulties Factor in Online Learning .................................................................................................................. 37  
*Annisa Rizki Amala, Lilis Widaningsih, Trias Megayanti*

Is Suitable for a Career? Views on Trends of Jobseekers in Vocational Education (Literature Review) .................................................................................................................. 42  
*Nadya, D. Rohendi*

Improving Teacher Competence through Industrial Experience Practice on the Teacher Professional Education (PPG) Program to Support Industry-Based Learning in Vocational High Schools ........................................................................................................ 47  
*Johar Maknun, Yulia Rahmawati, Sahroni*

University 4.0 Performance: Improvement of Learning Management System Using E-ServQual Post-Covid-19 Pandemic (Case Study in Private Universities) .................................................................................................................. 51  
*Taufiq Rahmat, Ito Turyadi, Iwan Ardiansyah, Tarli Supriyatna, Emed Taryaman, Mardiani Tanjung, Ari Muhamar Karsah, Diah Apriliani, Nuhrodin, Ooy Siti Halimah*

Enhancing the Ability of Vocational School Teachers in Compiling Indicators of Competence Using Lesson Plan Module Based on Vocational Curriculum ........................................................................................................ 57  
*Anay Suherman, Munu Komaro, Ega Taqwali Berman*

Students’ Learning Interest in the Implementation of Distance Learning in Vocational High Schools .................................................................................................................. 61  
*Yolavika Marsintyabela, Erna Krisnanto, Trias Megayanti*

Green Technology Awareness on Food Processing Among Students of Prospective Agricultural Vocational Teachers .................................................................................................................. 65  
*Muhammad Oka Ramadhan, Mustika Nuramalia Handayani*
Flood Monitoring System with Smart Solar Module for Implementation of Flood Problem Area ................... 70
Aas Wasri Hasanah, Rinna Hariyati, Tony Koerniawan, M. Noer Qosim

The Comparasion of Learning Outcomes and Classroom Conditions between Vocational Schools in Two Disaster Risk Categories in West Java................................................................. 73
Regina Rizqy Syifarianie, Ilhamdaniah Saleh, Trias Megayanti

The Potential of Guafit Powder Capsules as an ACE-2 Inhibitor (An in Silico Study) ......................... 79
Rahat Pusporini, Nenny Prasetyaningrum, Oktavia Eka Puspita

The Application of Virtual Reality (VR) in Vocational Education: A Systematic Review .................. 83
Amin, Isma Widiay, Cica Yulia, Ade Gafar Abdullah

The Development of AutoCAD Tutorial Video by Using Tiktok Social Media as a Learning Media in Vocational Highschool 2 Pekanbaru .............................................................. 92
Ripki Septiantoro, Lilis Widaningsih

Digitalization System Design for Monitoring and Control of Spare Parts Inventory Based on Android................................................................. 97
Agus Ponco, Ibrom, Syahril Ardi

Implementation of Learning Management System (LMS) in the Self-Development of Productive Teachers of Vocational Schools ................................................................. 102
Setia Aji, Yadi Mulyadi, Iwan Kustiawan

The Analysis of Technical Competency towards the Automotive Manufacturing Expertise in the Industrial Context 4.0 ................................................................. 107
Munif Jumhan, Ade Gafar Abdullah

WEB-Based Tracer Study in Vocational High School ........................................................................... 112
Toni Kurrokhmat, Dedi Rohendi

The 4.0 Industry Technology in Fashion Industries ............................................................................. 116
Syarifa Millatunnisa

Work Readiness of TVET Graduates in the Context of Industry 4.0 .................................................. 121
I. Nurjanah, M. Ana

Development of Vocational School Facilities for Teachers to Prepare Graduates with Digital Talent and Employability Skills ................................................................. 126
Hasbullah, Ilk Nurulpaik, Wawan Purnama, Neris Peri Ardiandiyas

Development of Portable IoT Data Logger for Water Quality Monitoring ......................................... 131
Eka Ratni Noor Wulandari, Harun Malik Abdullah, Salnak Ratih Asriningsias

Development of Transmission Jack Table as a Learning Innovation of Transmission Overhaul Practice to Reduce the Risk of Cumulative Trauma Disorders (CTDs) in Students................................. 136
R Adam M. Noor, I. Mubarak, Penny Maryani, Rika Andriani

Work-Integrated Learning in Vocational Education ............................................................................. 139
Ricky Cahyasari Putra, M. Syaom Barliana, Mumu Komaro, Aam Hamdani

Identification of Quality Factors in the Study Environment of Architecture Students in Supporting Online Learning in the Pandemic Period ...................................................... 145
Yazida Nur Azzam, Tutin Aryanti, Riskha Mardiana
Behavior Settings of Classroom of Department of Architectural Engineering at Pontianak State Polytechnic in The New Normal .......................................................... 220
  Dian Perwita Sari, Dewi Riia Indriana, Deni Maulana

Application of Temperature Measurement Contactless with Bidirectional Visitor Counter Using IoT as a Covid-19 Protocol............................................................... 226
  R. Reni Farenia Soedijananingrat, Dede Irawan Saputra, Dewi Ratih Handayani, Sri Quintina Indriyana, Atik Charisma, Siska Telly Pratiwi, I. Wayan Agus Putra

The Transformation of Coffee Shops into Coworking Spaces During the Pandemic .............................................. 232
  Putu Surya Triana Dewi, Ardina Susanti, I Wayan Yogik Adnyana Putra

Competency Demands of Vocational High School Graduates in the Era of the Industrial Revolution 4.0 .................................................. 239
  Nurholis Kamaludin, Ade Gafar Abdullah, Mumu Komaro

Systematic Literature Review on the Use of English in Workplace ................................................................. 245
  Tri Mandala Putra, Cica Yulia, Ana

Curriculum Development of Clothing Costs in Indonesia ........................................................................... 248
  Ranny Rahmawati, Isma Widiaty

Risk Management System Design Planning at the University Towards a State University Legal Entity (Study at Vocational Education Program of Universitas Brawijaya) ........................................................................... 252
  Amelia Ika Pratiwi, Anisya Sukmawati, Purweni Widhianningrum

A Prototype of a Constructivist Application for Online Evaluation in Learning Music ......................................... 258
  Puput Irfansyah, Erlando Doni Sirait, Aan Risdiana

How Career Interventions and Digital Career Counselling Affect Students’ Career Maturity (A Systematic Review) ........................................................................... 264
  Arismen, Dadang Lukman Hakim

Restaurant Image, Information Quality and Novelty Seeking as Behavioral Antecedents of Intention to Purchase Food Services Using Online Transportation ........................................................................... 270
  Tundung Subali Patma, Sovia Rosalin, Andriani Kusumawati, Karisma Sri Rahayu

Competency-based Learning Model for Photographer Certification: A Systematic Literature Review ................................................................. 276
  Puty Prakacita, Ilhamdaniah

The Analysis of Workplace Adaptation Factors for Women in the Construction Industry ........................................ 280
  Ummu Salamah, Lilis Widaningsih

The Use of LMS Schoology in Cooperative Learning to Improve Learning Activeness of Vocational High School Students ................................................................. 284
  Muh. Jasrin Sarif, Johar Maknun

Vocational High School Technical Skills Facing the Industrial Era 4.0 ................................................................. 289
  Ridwan Yanuardi, Isma Widiaty, Mumu Komaro

Integration of 4Cs Skills into Learning by Using the Project Based Learning (PjBL) Model to Face the Challenges of the 21st Century: Systematic Overview ................................................................. 294
  Asman, Mumu Kumaro, M. Syaom Barliana
Lateral Thinking in Typography Layout System (Alternative Layout Design for Effective Message Delivery).................................................................................................................................................. 300
  Yon Ade Lose Hermanto, Pujiyanto, Andreas Syah Pahlevi

Identification of Gender Concepts in Work-Family Conflict: A Systematic Literature Review ................. 306
  Dwi Tendi Apriyawan, Dedi Rohendi

Design and Implementation of Multiple Vaccine Monitor System Using IoT and Android Application........................................................................................................................................................ 310
  Ali Taufan, Dede Irawan Saputra, Siska Telly Pratiwi, Eka Noneng Nawangsih

Digital Village: Towards a Smart Society Tsunami Mitigation Using Arduino Based on Internet of Things........................................................................................................................................................ 315
  Indra Kristian, Rina, K. Tasdik, Dina, Tom Finaldin, M. Daud Yusuf, Asep Komarudin, Ria Nirwana, Asep Adang, Ade Burhanudin

Utilization of Cloud Computing for Learning in the Pandemic Era of Covid 19 ........................................... 320
  Nurholis Kamaludin, E. Ahmad Juanda, Ade Gafar Abdullah

Gender in Vocational Education............................................................................................................................ 327
  Isti Sri Rahayu, Tutin Aryanti

Assessing the Performance of Remote Laboratory.................................................................................................. 331
  Siscka Elvyanti, Yadi Mulyadi, Erik Haritman, Bella Az Zahra Krisnoputri, Didin Wahyudin

Concert Hall Design at Kelurahan Neglasari Bandung City .................................................................................. 335
  Hanna Putri Devita, M. Syaom Barliana, Riskha Mardiana

Synergy of Accounting and Search Engine Marketing (SEM) Applications for Business................................. 340
  Anisya Sukmawati

Author Index