



# InDeLib

**RECONNECT AND  
DISCOVER**

# Extended Abstract

International Innovation & Design in Library &  
Information Science Competition (InDeLib2022)

*Organized by*  
Faculty of Information Management  
UiTM Kedah Branch



UNIVERSITI  
TEKNOLOGI  
MARA

**Editors**  
Asmadi Mohammed Ghazali  
Abd Latif Abdul Rahman



# **EXTENDED ABSTRACT**

of

**International Innovation & Design in Library &  
Information Science Competition (InDeLib2022)**

## **Editors**

Asmadi Mohammed Ghazali

Abd Latif Abdul Rahman



Copyright © 2023, InDeLib2022

All rights reserved. No part of this publication may be reproduced, distributed or transmitted in any form by means, including photocopying, recording, digital scanning, or other electronic or mechanical methods without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other non-commercial uses permitted by copyright law. For permission requests, please address to Universiti Teknologi MARA (UiTM) Kedah Branch.

First Edition 2023

Perpustakaan Negara Malaysia

e ISBN 978-967-2948-46-9



Editors:

Asmadi Mohammed Ghazali  
Abd Latif Abdul Rahman

## CONTENTS

1. DETECTIVE LOOKING CHART: PLUTCHIK EMOTION GAMES FOR KIDS THROUGH VARK MODEL FOR ASD CHILDREN .....	1
2. E-VIEW: LOW VISION READER ASSISTANT .....	4
3. WHERE IS YUYU?: DETECTIVE THEME AUGMENTED REALITY (AR) CHILDREN'S BOOK .....	7
4. DEVELOPMENT OF BIODEGRADABLE PLASTIC USING <i>CAULERPA LENTILLIFERA</i> 'S EXTRACT FOR A SUSTAINABLE ENVIRONMENT .....	9
5. DEVELOPMENT OF BIODEGRADABLE PLASTIC USING <i>METAPENAEUS INTERMEDIUS</i> 'S SHELL EXTRACT TOWARDS A SUSTAINABLE FUTURE .....	11
6. LITTLE MATES BUSY BOOK .....	13
7. PHYTOPLANKTON MAP .....	15
8. SAMUDERAMAPS: WATER QUALITY MANAGEMENT LIBRARY FOR CONSERVATION AND SUSTAINABLE USE OF MARINE RESOURCES AND ECOSYSTEMS .....	17
9. VIRTUAL REFERENCE CONSULTATION SERVICES .....	19
10. ZOOPLANKTON MAP .....	21
11. CASUAL BOOK WRAPPER .....	23
12. FRAMEWORK: VISUAL-SPATIAL: A MEDIATOR EFFECTS ON THE AUTISM SPECTRUM DISORDERS (ASD) ACHIEVEMENT IN SPEECH UTTERANCE .....	26
13. Sec-CompFY: SECURE COMPARTMENT FOR YOU .....	28
14. SMART LeoBOT .....	31
15. SMART SEIRS .....	33
16. IMPROVISE THE INTERLIBRARY LOAN SYSTEM: DEVELOPMENT OF INTERLIBRARY LOAN ONLINE SYSTEM (iNTeLS) .....	35
17. REDISCOVERING WISDOM THROUGH ANIMATED DA'WAH SERIES FOR CHILDREN .....	37
18. BATEEQ PACKERS .....	40
19. BAMBOO RAINDROP DRAINAGE SYSTEM .....	42
20. MY BOOK .....	44
21. IDOL: INTERACTIVE DIGITAL OUTDOOR LIBRARY .....	46
22. THE SNOWMAN .....	49
23. UUM IN4SHARE AS INFORMATION SHARING PLATFORM .....	52
24. INFOADVISER .....	54

## VIRTUAL REFERENCE CONSULTATION SERVICES

Airul Shazwan Norshahimi<sup>1</sup>, Asma Nadia Zanol Rashid<sup>2</sup> & Siti Aqilah Yop<sup>3</sup>

<sup>1,2,3</sup> Faculty of Information Management, UiTM Kedah Branch

airulshazwan@uitm.edu.my, asmanadia@uitm.edu.my, aqilahyop@uitm.edu.my

### Abstract

Virtual Reference Consultation Services (VFRC) is a service application allowing patrons to connect virtually with the librarian. VFRC is an application that was specially developed with 3D design and space. Virtual Reference Consultation Services is adapted by Virtual Reality (VR) and Augmented Reality (AR) that turns any room into a 3D workspace. VFRC is a new space for library patrons to access the library collections virtually. This product will provide an immersive experience where they can connect their areas easily to other platforms. This product will give online reference and consultation services to library patrons. It also encourages users to seek reference and consulting services remotely. Furthermore, this platform allows libraries and users to collaborate in interactive and immersive platforms. Developers created one special room for the reference consultation services, allowing library patrons to walk around and interact in VFRC virtual rooms with avatar functionality and controls to share, collaborate or view the content with others. This platform can enrich the patron's library experience and introduce them to the virtual world.

### Keywords

Libraries, Digital Libraries, Reference Services, Virtual Reality, Augmented Reality.

### Product Description

Virtual Reference Consultation Services is an application specially developed with 3D design and space. Virtual Reference Consultation Services is a Virtual Reality (VR) and Augmented Reality (AR) that turns any room into a 3D workspace. Virtual Reference Consultation Services is the new platform that helps creators build their own spaces in the metaverse. Virtual Reference Consultation Services will provide mind-blowing experiences to those users as the platform can share content around them, manipulate 3D objects and customize any environment through LiDAR scanning in the application. This platform allows library patrons to walk around and interact in Virtual Reference Consultation Services virtual rooms with avatar functionality and controls, which they can share, collaborate or view the content with others.

### Novelty and Uniqueness

This product is specially designed with Virtual Reality (VR) and Augmented Reality (AR), which enhance 3D design and metaverse use. Developers created one special room for the reference consultation services, allowing library patrons to walk around and interact in Virtual Reference Consultation Services virtual rooms with avatar functionality and controls to share, collaborate or view the content with others.

### Benefit to Mankind

Virtual Reference Consultation Services is a new space for library patrons to access library collections virtually. This product will provide an immersive experience where they can connect their spaces easily to other platforms. This product will provide online reference and consultation services to library patrons. It also encourages users to seek reference and consulting services remotely. Furthermore, this platform allows libraries and users to collaborate in interactive and immersive platforms.

### **Potential Commercialization**

This product targeted the information agencies mainly from the National Library of Malaysia, State Public Libraries, Academic Libraries, Special Libraries, Community Libraries and School Libraries. This platform could lead to a future enhancement of digital libraries, mainly in Malaysia, as Bruce (2015) & Nanu et al. (2013) highlighted that Virtual Reality (VR) and Augmented Reality (AR) as learning solutions for digital natives.

### **Acknowledgement**

All praises are to Allah and His Blessing. First of all, we thank Allah for giving us the strength and ability to complete this product. Finally, thanks to the organizer of the International Innovation & Design in Library & Information Science Competition (InDeLib) 2022 for this opportunity.