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TABLE OF CONTENT

DESIGN CATEGORY	Pages
1. INTELLIGENT ESSENTIAL OIL EXTRACTION SYSTEM	2
2. DEVELOPMENT OF AN ELECTRONIC EDUCATIONAL KIT FOR LEARNING CONTROL PRINCIPLE SUBJECT; BLOCK DIAGRAM	3
3. E-TOURISM ATLAS: A WEB-MULTIMEDIA TOURISM MAPPING SYSTEM AND MOBILE APPS IN MALAYSIA	4
4. MTXbrooch: FINE METAL AND TEXTILE ARTS FOR MODERN CONTEMPORARY BROOCH	5
5. RULER MATH	6
6. BOOK POINT	7
7. EMOQUEST : BEST PRACTICE VISUAL EMOTIONAL TECHNIQUES SURVEY IN TEACHING AND LEARNING AS AN INNOVATIVE APPROACHES USING MOBILE APPLICATIONS	8
8. MODEL KIT I-BO	9
9. GUNA –GUNA	10

INNOVATION CATEGORY

10. WALKING AROUND IMPROVEMENT KEYS (WALKS)	12
11. A-DAM –ALAT BERMAIN, BERZIKIR DAN BERDOA	13
12. GAMEBOX: ALTERNATIVE THERAPY TO IMPROVE AUTISM’S THINKING AND MENTAL ABILITY	14
13. PENGHAYATAN DAN KEBERKESANAN PENGGUNAAN MULTIMEDIA DALAM KURSUS MAGNUM OPUS MELAYU DI UNIVERSITI MALAYSIA KELANTAN	15
14. REHAL TOOLKIT	16
15. BASIC ISLAMIC LEARNING (BIL) BOARD GAME	17
16. EZH2O-Citrullus	18
17. TEJA – ECO INDIKATOR	19
18. ARLITAR: AUGMENTED REALITY FOR BASIC CIRCUIT LEARNING MODULE	20
19. COOLING PAD TEMPERATURE MONITORING SYSTEM USING ARDUINO (CPTM)	21
20. AUGMENTED REALITY BASED APPLICATION FOR CHEMISTRY EDUCATION (ARCHEM)	22
21. DUAL-MODE DISTILLATION ESSENTIAL OIL EXTRACTION SYSTEM WITH STFPID	23
22. HOBP (HYDROGEL OF BANANA PEEL) : UTILIZATION OF BANANA PEEL WASTE AS A BASIC MATERIAL FOR ECO-FRIENDLY HYDROGEL PLANTING MEDIA	24

INNOVATION

CATEGORY

HOBP (HYDROGEL OF BANANA PEEL) : UTILIZATION OF BANANA PEEL WASTE AS A BASIC MATERIAL FOR ECO-FRIENDLY HYDROGEL PLANTING MEDIA

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Banana is one of the tropical fruit commodities which is quite potential in Indonesia, including in Malang district. The average growth in banana production in Indonesia from 2011 to 2015 was 4.92% per year. East Java is the province with the largest banana production in Indonesia during the period of 2011-2015, namely 21.87 districts with the most banana production is Malang Regency with a contribution of production of 42.35% (690,136 tons) of total banana production in East Java Province. So far, people only use fruit and heart of bananas as processed foods, while banana peels only become processed waste products. Banana skin has carbohydrate potential, Carbohydrates contained by banana skin are starch. Amylum or starch is a type of carbohydrate polysaccharide (complex carbohydrates). Amylum (starch) is insoluble in water, in the form of white, fresh and odorless powder. Banana Peel Starch has high potential as a raw material for biodegradable products such as Hydrogel Planting Media because it is a naturally biodegradable biopolymer. The use of many hydrogels is also used as a medium for ornamental plants because of the gel properties that dyes can provide, practical and can be watered once a month, avoiding ground animals, suitable for living rooms or work desks. Based on the problems described, the purpose of making HoBP products in general is to make this product to provide a new alternative to Hydrogel raw materials through the concept of substituting raw materials for the utilization of banana peels. The specific purpose of writing is to offer the concept of substituting raw materials for efforts in minimizing banana peel waste. Data collection techniques using experiments and data collection techniques carried out by conducting library research. HoBP has the advantage of being environmentally friendly, materials always available, sufficient raw material content as a substitute for Hydrogel raw materials in general.

Keywords : Banana, Hydrogel, Strach, Planting Media, Biopolymer



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