CAPE INSTITUTE OF TECHNOLOGY IBM NALAIYA THIRAN

LITERATURE SURVEY

**Real-Time Communication System Powered by AI**

**for Specially Abled**

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| **TITLE** | **AUTHORS** | **DESCRIPTION** | **ADVANTAGES** | **DISADVANTGES** |
| DIABETES MONITORING PATCH FOR VISUALLY IMPAIRED PERSONS USING ARTIFICIAL INTELLIGENCE  **YEAR:**  JANUARY 2021 | GOPIRAJAN PV, SHOBANA  MAHALINGAM, MANICKAM M, REVATHI A. | PATCH USES AN AI ALGORITHM FOR ANALYZING DATA WHICH IS COLLECTED FROM THE BODY BY USING BIOSENSORS. PATCH COMPOSED OF  GLUCOSE,TEMPERATURE, ULTRASONIC,GPS SENSOR , BUZZER. HEARING LOUD SOUND OF BUZZER THE VISUALLY IMPAIRED PERSON CAN DECIDE IF ANALYZED RESULT IS ABNORMAL. | AUTOMATED RETENIAL SCREENING, PATIENT SELF MANAGEMENT TOOLS | HUMAN FACTORS, LIMITATION OF DESIGN |
| LOCATING RESTROOM FOR SPECIALLY ABLED PEOPLE USING AI AND MACHINE LEARNING  **YEAR:**  OCTOBER 2021 | PRAGATI RAIZADA, SHAGUN SABOO, SRISHTI GUPTA, | APP DESIGNED WITH ASSISTANCE OF AI AND MACHINE LEARNING, VOICE RECOGNITION, MAPS LIVE, SIGN LANGUAGE INTERPRETATION. OVERALL PURPOSE IS TO LOCATE RESTROOMS AND KEEP HYGIENE IN CONSIDER FOR THOSE WHO ARE SPECIALLY  ABLED. | USEFUL FOR SPECIALLY ABLED PERSON WHO ARE VISUALLY IMPAIRED TO LOCATE RESTROOM. | DUE TO LIMITATION OF DATA OR DESIGN THE VOICE RECOGNITION TO GUIDE PEOPLE TO LOCATE IS AN SERIOUS ISSUE. |

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| COMMUNICA- TION LEARNING USER INTERFACE MODEL FOR CHILDREN WITH AUTISM WITH GOAL DIRECTED DESIGN METHOD  **YEAR:**  JULY 2019 | FITRILIA SUSANTI, DANANG JUNAEDI, VERONIKHA EFFENDY | CHILDREN WITH AUTISM HAVE COMMUNICATION DISORDER THAT AFFECTS THE CHILDREN FACE DIFFICULTY INTERACTING & COMMUNICATING WITH THEIR ENVIRONMENT BOTH VERBALLY & NON VERBALLY. | IT PRODUCE A USER INTERFACE MODEL BASED ON ORGANIZATION GOAL AND GOAL OF AUTISTIC CHILDREN. | USER HAS TO WAIT 30 SECONDS TO LEARN ONE THING.  DUE TO THIS CHILDREN WILL DISPLAY AUTISTIC ACTIVITIES BECAUSE THEY ARE BORED AND IMPATIENT. |
| FACE BASED REAL TIME COMMUNICATI-  -ON FOR SPEECH DISABLE PEOPLE  **YEAR:**  JANUARY 2011 | ONG CHIN ANN, BEE THENG LAU, MARLENE LU. | TO ENHANCE COMMUNICATION OF DIABLED COMMUNITY. IT HAS AUTOMATED REAL TIME BEHAVIOUR MONITORING, DESIGNED AND IMPLEMENTED WITH UBIQUITOUS. | TO ASSIST PEOPLE IN COMMUNICATI-  -ON NEEDS, THEY IMPROVED REAL TIME BEHAVIOUR MONITORING APP. | IN THIS MODEL IT STILL FAILED TO DETECT HUMAN FACE IF BACKLIGHT IS TOO STRONG. |
| SPEECH TECHNOLOGIES CAN HELP PEOPLE WITH DISABILITIES  **YEAR:**  OCTOBER 2014 | VLADO DELIC, MILAN, NATASA VUJNOVIC, DRAGISA MISKOVIC | SPEECH COMMUNICATION CAN HELP PEOPLE WHO CANNOT USE THEIR EYES OR ARMS AND ALSO FOR HEARING IMPAIRED AS WELL AS TO ELDERLY PEOPLE. | AUTOMATIC SPEECH RECOGNITION IS USEFUL FOR PHYSICALLY DISABLED WHO CAN ISSUE VOICE COMMANDS TO DEVICE IN THEIR ENVIRONMENT. | PEOPLE WITH DISABILITIES THAT ARE UNABLE TO USE EITHER SPEECH OR TEXT IS NOT SPECIFIED IN THIS WHICH ARE BASED NOT ONLY ON SPEECH TECHNOLOGIES BUT ALSO MUCH HEAVILY DEPENDENT ON NLP. |