

Profile Image

DR. SHARMA RAO A/L BALAKRISHNAN

PENSYARAH UNIVERSITI DS13

CONTACT

Phone: 06-7988504

E-mail:

sharma@usim.edu.my

Faculty: Fakulti Kejuruteraan
Dan Alam Bina

SUPERVISION

PhD - Completed: 1, Ongoing: 1

Master - Completed: 1, Ongoing: 0

AREAS OF EXPERTISE

Nano Materials

Semiconductor Materials

Fabrication Technology

Biochips

Biosensor

ACADEMIC QUALIFICATION

PhD in Kejuruteraan Nanoelektronik (2016)

Bachelor in Kejuruteraan Mikroelektronik (2012)

RESEARCH

1. NANOHYBRID BASED MULTIPLEXED NANO-INTERDIGITATED
ELECTRODE ARRAY (NIDEA) BIOSENSOR FOR CANCER RELATED
DISEASE

2020

GERAN KPT

ON GOING

MAIN RESEARCHER

2. ULTRA-HIGH SENSITIVE BIOANALYTICAL DETERMINATION OF
LARD USING NANOHYBRID BIOSENSING APPROACH AS A TOOL
FOR HALAL PRODUCT INVESTIGATION

2018

GERAN PENYELIDIKAN KHAS

ON GOING

MAIN RESEARCHER

PUBLICATION

1. COMPARATIVE ANALYSIS ON DIELECTRIC GOLD AND ALUMINIUM TRIANGULAR JUNCTIONS: IMPACT OF IONIC STRENGTH AND BACKGROUND ELECTROLYTE BY PH VARIATIONS

SCIENTIFIC REPORTS

2020 JOURNAL SCOPUS AND ERA MAIN AUTHOR

2. DESIGN AND FABRICATION OF POLYDIMETHYLSILOXANE BASED LOW COST MICROFLUIDIC FOR ULTRA-FAST DIAGNOSTIC APPLICATIONS

INTERNATIONAL JOURNAL OF INTEGRATED ENGINEERING

2018 JOURNAL SCOPUS MAIN AUTHOR

3. SMART WATER TURBIDITY LEVEL MEASUREMENT SYSTEM WITH WIRELESS DATA TRANSMISSION BASED ON ARDUINO HARDWARE PLATFORM

SYMPOSIUM ON INSTRUMENTATION AND SENSING TECHNOLOGY (SOINSET 2018)

2018 PROCEEDING NON-INDEX MAIN AUTHOR

4. DESIGN AND FABRICATION OF POLYDIMETHYLSILOXANE BASED LOW COST MICROFLUIDIC FOR ULTRA-FAST DIAGNOSTIC APPLICATIONS

2ND INTERNATIONAL WORKSHOP ON COMPUTER TOMOGRAPHY & IMAGING TECHNOLOGY

2017 PROCEEDING NON-INDEX MAIN AUTHOR

5. POLYSILICON NANOGAP LAB-ON-CHIP FACILITATES MULTIPLEX ANALYSES WITH SINGLE ANALYTE

BIOSENSORS AND BIOELECTRONICS

2016 JOURNAL WOS MAIN AUTHOR

6. A POINT-OF-CARE IMMUNOSENSOR FOR HUMAN CHORIONIC GONADOTROPIN IN CLINICAL URINE SAMPLES USING A CUNEATED POLYSILICON NANOGAP LAB-ON-CHIP

PLOS ONE

2015 JOURNAL WOS MAIN AUTHOR

7. POLYSILICON NANOGAP LAB-ON-CHIP FACILITATES MULTIPLEX ANALYSES WITH SINGLE ANALYTE

4TH INTERNATIONAL CONFERENCE ON BIO-SENSING TECHNOLOGY

2015 PROCEEDING NON-INDEX MAIN AUTHOR

8. DEVELOPMENT OF HIGHLY SENSITIVE POLYSILICON NANOGAP WITH APTES/GOX BASED LAB-ON-CHIP BIOSENSOR TO DETERMINE LOW LEVELS OF SALIVARY GLUCOSE

SENSORS AND ACTUATORS A: PHYSICAL

2014 JOURNAL WOS MAIN AUTHOR

9. CONVENTIONAL PHOTOLITHOGRAPHY AND PROCESS OPTIMIZATION OF PATTERN-SIZE EXPANSION TECHNIQUE FOR NANOGAP BIOSENSOR FABRICATION

INTERNATIONAL CONFERENCE ON NANOSCIENCE AND NANOTECHNOLOGY 2013 (NANO-SCITECH 2013)

2013 PROCEEDING NON-INDEX MAIN AUTHOR

10. PATTERN TRANSFER OF 1?M SIZED MICROGAP AND MICROBRIDGE ELECTRODE FOR APPLICATION IN BIOMEDICAL NANO-DIAGNOSTICS

JOINT INTERNATIONAL CONFERENCE ON NANOSCIENCE, ENGINEERING AND MANAGEMENT (BOND21)

2013 PROCEEDING NON-INDEX MAIN AUTHOR

11. THIN FILM THICKNESS AND UNIFORMITY MEASUREMENT FOR LAB-ON-CHIP BASED NANO-ELECTRODE BIOSENSOR DEVELOPMENT

INTERNATIONAL CONFERENCE ON NANOSCIENCE AND NANOTECHNOLOGY 2013 (NANO-SCITECH 2013)

2013 PROCEEDING NON-INDEX MAIN AUTHOR

12. MICROFLUIDIC PHOTOMASK DESIGN USING CAD SOFTWARE FOR APPLICATION IN LAB-ON-CHIP BIOMEDICAL NANODIAGNOSTICS

2ND INTERNATIONAL CONFERENCE ON SUSTAINABLE MATERIALS (ICOSM 2013)

2013 PROCEEDING NON-INDEX MAIN AUTHOR

13. PHOTORESIST MICROBRIDGE PATTERN OPTIMIZATION AT 1?M USING CONVENTIONAL PHOTOLITHOGRAPHY TECHNIQUE

RSM 2013 IEEE REGIONAL SYMPOSIUM ON MICRO AND NANO-ELECTRONICS

2013 PROCEEDING NON-INDEX MAIN AUTHOR

PUBLICATION

14. NANO-ELECTRODE CHROME PHOTOMASK DESIGN AND SPECIFICATION FOR BIOSENSOR FABRICATION

2ND INTERNATIONAL CONFERENCE ON SUSTAINABLE MATERIALS (ICOSM 2013)

2013

PROCEEDING

NON-INDEX

MAIN AUTHOR

15. QUANTITATIVE MEASUREMENT OF SUGAR CONCENTRATION USING IN HOUSE FABRICATED MICROGAP BIOSENSOR

IEEE REGIONAL SYMPOSIUM ON MICRO & NANO-ELECTRONICS

2013

PROCEEDING

NON-INDEX

MAIN AUTHOR

16. PH SENSING USING IN HOUSE FABRICATED POLYSILICON NANO-ELECTRODE BASED TRANSDUCER

2012 IEEE EMBS CONFERENCE ON BIOMEDICAL ENGINEERING AND SCIENCES (IECBES 2012)

2012

PROCEEDING

NON-INDEX

MAIN AUTHOR

17. CARBON NANOTUBES-BASED ELECTROCHEMICAL BIOSENSORS

2012 IEEE EMBS CONFERENCE ON BIOMEDICAL ENGINEERING AND SCIENCES (IECBES 2012)

2012

PROCEEDING

NON-INDEX

MAIN AUTHOR

AWARDS/RECOGNITION

1. ENZYMATIC COCOA POD WAX EXTRACTION MONITORING DEVICE FOR COCOA FARMS

4TH INNOVATION BANK CHALLENGE 2024 (IBC 2024)

2024

UNIVERSITI

SILVER

2. NANOHYBRID BASED MULTIPLEXED NANO-INTERDIGITATED ELECTRODE ARRAY (NIDEA) BIOSENSOR FOR CANCER RELATED DISEASE

INNOVATION BANK CHALLENGE 2023 (IBC2023)

2023

UNIVERSITI

GOLD

3. THE POTENTIAL OF TOMOGRAPHY (PAT) TECHNIQUE FOR DENTAL IMAGING..

SCIENCE AND TECHNOLOGY RESERACH EXPO (SCITEX@20TH FST)

2023

UNIVERSITI

BRONZE

4. STAF CONTOH BULANAN SEPT 2022

2022

UNIVERSITY

5. RUBBER TREE TRUNK HUMIDITY INSPECTOR

PERTANDINGAN REKACIPTA INOVASI INTERNASIONAL & NASIONAL 2022 (PRIIN 2022)

2022

ANTARABANGSA

SILVER