



# UNIVERSITI TEKNIKAL MALAYSIA MELAKA

## Kurikulum Vitae Curriculum Vitae

### I. Maklumat Peribadi: Personal Particulars

Nama: MOHD SAFIRIN BIN KARIS  
Name: \_\_\_\_\_

No. Kad Pengenalan: 860410305561  
IC No.: \_\_\_\_\_

Fakulti/Pusat: FKE / CeRIA  
Faculty/Centre \_\_\_\_\_

Jawatan : PENSYARAH  
Current Position: \_\_\_\_\_

Tetap / Sementara/Kontrak: TETAP  
(Permenant/temporary)

Gred Kumpulan: DS 45  
Gred position \_\_\_\_\_

Tarikh Pengemaskinian CV : JANUARI 2015  
Date of CV updated: \_\_\_\_\_

### II. A. Kelulusan Akademik dan Profesional (Sila senaraikan semua kelulusan akademik bermula daripada Ijazah Sarjana Muda mengikut susunan kronologi) Academic and Professional Qualifications (Please list all academic qualifications, from your first degree in chronological order)

| Tahun<br>Year | Kelulusan<br>Degree | Pengkhususan Discipline                                        | Universiti University                       |
|---------------|---------------------|----------------------------------------------------------------|---------------------------------------------|
| 2004-2009     | IJAZAH              | SARJANA MUDA KEJURUTERAAN ELETRIK – TELEKOMUNIKASI             | UNIVERSITI TEKNOLOGI MALAYSIA (UTM, Skudai) |
| 2010-2012     | SARJANA             | SARJANA KEJURUTERAAN ELETRIK – MEKATRONIK KAWALAN DAN AUTOMASI | UNIVERSITI TEKNOLOGI MALAYSIA (UTM, Skudai) |

### B. Tajuk tesis pascasiswazah (Sila senaraikan tajuk tesis bermula daripada peringkat Sarjana mengikut susunan kronologi) Titles of postgraduate thesis written (Please list all thesis written, from your Master Degree in chronological order)

Master Degree - Optical Process Tomography using Laser Sources

### III. Bidang Penyelidikan Utama (Sila senaraikan tiga sahaja) Main Areas of Research Interest (Please list a maximum of three)

1. CONTROL INSTRUMENTATION & AUTOMATION (Sensor Design, Control System & Optimization System)
2. TELECOMMUNICATION (Signal Analysis & Wireless Communication)
3. IMAGE PROCESSING (Analysis & Optimization)

### IV. Projek Penyelidikan Yang dilaksanakan (Sila tulis tajuk, projek yang telah atau sedang dijalankan) Completed/On-going research project (Please write the title or past or current project)

| No | Title                                                                                                                      | Funder | Reference               |
|----|----------------------------------------------------------------------------------------------------------------------------|--------|-------------------------|
| 1. | Development of Out-of-Plane Rotated Face Detection using Speeded-Up Robust Features (SURF) to Improve Accuracy Performance | UTeM   | PJP/2014/FKE(6B)/S01317 |

**V. Senarai Anugerah Penyelidikan / Pameran / Inovasi yang diperolehi**  
**List of awards of Research / exhibition & Innovation gained**

**Local Awards**

| No  | Title                                                                                                 | Event                                                                                                        | Awards Received               |
|-----|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------------------|
| 1.  | Stopwatch Verification Platform                                                                       | RIID 2014 (Research, Invention, Innovation & Design (13-14 Disember 2014), UiTM, Melaka.                     | Gold Medal                    |
| 2.  | Smart Wheelchair                                                                                      | RIID 2014 (Research, Invention, Innovation & Design (13-14 Disember 2014), UiTM, Melaka.                     | Silver Medal                  |
| 3.  | Stopwatch Verification Platform                                                                       | Mini UTeMEX 2014, (24 Disember 2014) FTK, UTeM, Melaka.                                                      | Bronze Medal                  |
| 4.  | Real Time – Wireless Temperature Body Monitoring System                                               | Mini UTeMEX 2014, (24 Disember 2014) FTK, UTeM, Melaka.                                                      | Bronze Medal                  |
| 5.  | Stopwatch Verification Platform                                                                       | Capstone Exhibition 2014, (26 November 2014), FKE, UTeM, Melaka.                                             | Special Awards – Silver Medal |
| 6.  | Traffic Sign Detection System Based On RGB, HSV and CMYK Color Technique in Different Environments    | Eureka 2015, Eureka Innovation Exhibition, NATIONAL LEVEL (28-30 July 2015), UniKL                           | Silver Medal                  |
| 7.  | Volducational Kit: An Educational Kit For Learning Electrical Circuit Among Secondary School Students | Eureka 2015, Eureka Innovation Exhibition, NATIONAL LEVEL (28-30 July 2015), UniKL                           | Bronze Medal                  |
| 8.  | Automatic Motorcycle Signal Indicator Using Arduino Uno And Accelerometer                             | 4 <sup>th</sup> International Invention, Innovation & Design Exhibition 2015 (13 – 14 June 2015), UiTM Perak | Gold Medal                    |
| 9.  | Smart Disposal Waste System                                                                           | Capstone Exhibition 2015, (26 November 2014), FKE, UTeM, Melaka.                                             | Gold Awards / Special Awards  |
| 10. | Automatic Adjustable Chair                                                                            | Capstone Exhibition 2015, (26 November 2014), FKE, UTeM, Melaka.                                             | Bronze Awards                 |
| 11. | Eezee Bag                                                                                             | Capstone Exhibition 2015, (26 November 2014), FKE, UTeM, Melaka.                                             | Gold Awards                   |
| 12. | Smart Board Quiz With Logic Gates                                                                     | Capstone Exhibition 2015, (26 November 2014), FKE, UTeM, Melaka.                                             | Bronze Awards                 |
| 13. | Automatic Plate Number Recognition                                                                    | Capstone Exhibition 2015, (26 November 2014), FKE, UTeM, Melaka.                                             | Gold Awards / Special Awards  |
|     |                                                                                                       |                                                                                                              |                               |

|     |                                                                                                          |                                                                                                     |                     |
|-----|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|---------------------|
| 14. | <i>Blind Spot Detection Device</i>                                                                       | <i>Capstone Exhibition 2015, (26 November 2014), FKE, UTeM, Melaka.</i>                             | <i>Gold Awards</i>  |
| 15. | <i>Electronic Congkak Board</i>                                                                          | <i>Invention, Innovation &amp; Design UiTM N9 2015, 18 November 2015.</i>                           | <i>Silver Medal</i> |
| 16. | <i>Programmable Logic Controller Simulator Kit Using Mnemonic Codes</i>                                  | <i>Innovation Symposium &amp; Exposition 2015 (RISE 2015), 15-16 November 2015</i>                  | <i>Bronze Medal</i> |
| 17. | <i>Electronic Educational Quiz for Teaching Combination of Resistors for Electrical Circuit Syllabus</i> | <i>International Bussiness Invention, Innovation &amp; Design 2016(IBIID 2016) (1-2 march 2016)</i> | <i>Gold Medal</i>   |
| 18. | <i>Electronic Based Words Board Game</i>                                                                 | <i>Eureka 2015, Eureka Innovation Exhibition, INTERNATIONAL LEVEL (16-18 August 2016), UniKL</i>    |                     |

  

**VI. Bilangan dan no. pendaftaran Harta Intelek yang dihasilkan**  
*Quantity and registration number of Intellectual Property*  
NIL

  

**VII. Bilangan sitasi dan nama jurnal**  
*Number of citation and name of journals*  
NIL

  

**VIII. Bilangan penerbitan dalam Jurnal Berimpak**  
*Number of publication in high index journals*  
NIL

  

**IX. SENARAI UTAMA PENERBITAN** (*penerbitan jurnal/prosiding/buku sejak 2008*)  
*List of Major Publication (Please list publication since 2008)*

**a) Journal**

**1)** Siti Zarina Mohd Muji, Ruzairi Abdul Rahim, Mohd Hafiz Fazalul Rahiman, Zulkarnay Zakaria , Elmy Johana Mohamad, **Mohd Safirin Karis**, “ The Linearity of Optical Tomography: Sensor Model and Experimental Verification ”, *Sensors & Transducers Journal*, Vol. 132, Issue 9, September 2011, pp. 40-46, ISSN 1726-5479

**2)** Naizatul Shima Mohd Fadzil, Ruzairi Abdul Rahim, **Mohd Safirin Karis**, Siti Zarina Mohd Muji, Mohd Fadzli Abdul Sahib, Mohd Saiful Badri Mansor, Nor Muzakkir Nor Ayob, Mohd Fahajumi Jumaah, Mohd Zikrillah Zawahir, “Hardware Design of Laser Optical Tomography System for Detection of Bubbles Column”, *Jurnal Teknologi (Sciences & Engineering)* 64:5 (2013) pp. 69–73, ISSN 0127–9696

**3)** Ahmad Fariz Hasan, Mohd Fairus Ahmad, Mohd Nasir Ayob, Shamsul Amir Abdul Rais, Nor Hidayah Saad, Amar Faiz Zainal Abidin, Ali Abussal, Nur Anis Nordin, Syahrul Hisham Mohamad, **Safirin Mohd Karis**, Hazriq Izzuan Jaafar, “ Application of Binary Particle Swarm Optimization in Automatic Classification of Wood Species using Gray Level Co-Occurrence Matrix and K-Nearest Neighbor ”, *International Journal of Scientific & Engineering Research*, Volume 4, Issue 5, May-2013, ISSN 2229-5518

4) Norsabilillah Mohd Ali, **Mohd Safirin Karis**, Amar Faiz Zainal Abidin, "Traffic Sign Detection And Recognition: Review And Analysis", *Jurnal Teknologi (Sciences & Engineering)*, 2015, 77:20 (2015) pp. 107–113, ISSN 2180–3722

5) MF Baharom, M.H Rosli, TA Izzudin, F.N Zohedi, **MS Karis**, "Relay Coordination Setting in Time and Current Using CAPE Software: Relay Grading", *Journal of Theoretical And Applied Information Technology*, Vol 8, 2015, JATIT, (E-ISSN 1817-3195 / ISSN 1992-8645).

6) **Mohd Safirin Karis**, Nursabilillah Mohd Ali, Asmidar Mohd Basar, Hazriq Izzuan Jaafar, Amar Faiz Zainal Abidin, "An Analysis On Out-Of Plane Face Detection Among Female Student And Illumination Effects Using SIFT and SURF", *Journal of Engineering Science & Technology (JESTEC)*, 21-22 Dec 2015

7) **Mohd Safirin Karis**, Nursabilillah Mohd Ali, Nur Warrissyahidah Badrul Hisham, Amar Faiz Zainal Abidin, "Out-of-Plane Facial Detection Using Variant Dataset Among UTeM Students", *Journal of Engineering Science & Technology (JESTEC)*, 21-22 Dec 2015 - **(Accepted)**

8) Norsabilillah Mohd Ali, **Mohd Safirin Karis**, Munawwarah Abd Aziz, Amar Faiz Zainal Abidin, "Analysis Of Frontal Face Detection Performance By Using Artificial Neural Network (ANN) And Speeded-Up Robust Features (SURF) Technique", *Journal of Engineering Science & Technology (JESTEC)*, 21-22 Dec 2015

9) **Mohd Safirin Karis**, Wira Hidayat Mohd Saad, Nursabilillah Mohd Ali, Khor Chin We, Nur Rafiqah Abdul Razif, Asmiza Selamat, Amar Faiz Zainal Abidin, Mohamad Kasyful Azim Ahmad, "Fruit Sorting Based On Machine Vision Technique", *Jurnal Teknologi (Sciences & Engineering)*

10) Nursabilillah Mohd. Ali, Nur Rafiqah Abdul Razif, **Mohd Safirin Karis**, Oh Kok Ken, Wira Hidayat Mohd Saad, Amar Faiz Zainal Abidin "Inspection Of Mango With Machine Technique", *Jurnal Teknologi (Sciences & Engineering)*

#### b) Books

- i) Book Title : Process Tomography and Instrumentation Series 7/2011 - University Technology Malaysia (UTM)  
Year : 2011
- ii) Book Title : Detect large moving objects underwater and distinguish between natural and artificial objects. Pg 135- 142 (Penerbit UTM - Press)  
Year : 2011
- iii) Book Title : Simultaneously profile the sea bottom and sea surface from the air to make up to date navigational charts. Pg 43 - 56. (Penerbit UTM – Press)  
Year : 2011
- iv) Book Title : Detect ore bodies from the air and distinguish between different ores. Pg 57 – 80. (Penerbit UTM – Press)  
Year : 2011

#### c) Proceedings

##### i) International

| Bil | Tajuk                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.  | <i>Ishak Taman, Nur Atika Md Rosid, <b>Mohd Safirin Karis</b>, Saipol Hadi Hasim, Amar Faiz Zainal Abidin, Nur Anis Nordin, Norhaizat Omar, Hazriq Izzuan Jaafar, Zailani Ab Ghani, and Jefery Hassan, "Classification System for Wood Recognition Using K-Nearest Neighbor with Optimized Features from Binary Gravitational Algorithm", International Conference Recent trends in Engineering &amp; Technology (ICRET'2014), 13-14 February 2014, Batam ,Indonesia.</i><br><br><i>Place : Batam, Indonesia, 13-14 February 2014</i> |
| 2.  | <i>Nursabilillah Mohd Ali, <b>Mohd Safirin Karis</b>, Javad Safaei, Amar Faiz Zainal Abidin "Hidden Nodes of Neural Network: Useful Application in Traffic Sign Recognition", Proc. of the IEEE International Conference on Smart Instrumentation, Measurement and Applications (ICSIMA), 25-27 November 2014, Kuala Lumpur, Malaysia</i>                                                                                                                                                                                             |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | Place : Kuala Lumpur, Malaysia, 25-27 November 2014                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 3. | <p><b>Mohd Safirin Karis</b>, Norhaslinda Hasim, Mohd Zurix Mohamed, M. Khairul Shahril, Norsabilillah Mohd Ali, Mohd Faizal baharom, Arfah Ahmad, Zulkarnain Mokhtar, Norafizah Abas, "Comparative Study for Bitumen Containment Strategy using Different Radar Types for Level Detection", The 2<sup>nd</sup> International Conference on Electronic Design (ICED 2014), 19 – 21 August 2014, Penang, Malaysia.</p> <p>Place : Penang, Malaysia, 19-21 August 2014</p>                                                                                                                                                                                                               |
| 4. | <p>Mohd Muzafar Ismail, Ezreen Farina Shair, Arfah Syahida Mohd Noor, Nur Latif Azyze Mohd Shaari Azyze, Ahmad Rijal Abdul Rahman, <b>Safirin Mohd Karis</b>, Hazriq Izzuan Jaafar, Syahrul Hisham Mohamad, Suzanna Ridzuan Aw, Amar Faiz Zainal Abidin, Seri Mastura Mustaza, Ili Najaa Aimi, Ibrahim MH Sanhoury, Nur Anis Nordin, Asrani HJ Lit, Muhammad Asyraf Azman "A Preliminary Study on Solving Knight's Tour Problem Using Binary Magnetic Optimization Algorithm", Science &amp; Engineering Technology National Conference 2013 (SETNC2013), 3-4 July 2013, Bandar Baru Bangi, Selangor, Malaysia, 3-4 July 2013</p> <p>Place : Bandar Baru Bangi, Selangor, Malaysia</p> |
| 5. | <p><b>Mohd Safirin Karis</b> , Nursabilillah Mohd Ali, Asmidar Mohd Basar, Hazriq Izzuan Jaafar, Amar Faiz Zainal Abidin, "An Analysis On Out-Of Plane Face Detection Among Female Student And Illumination Effects Using SIFT and SURF", Journal of Engineering Science &amp; Technology (JESTEC), 21-22 Dec 2015</p> <p>Place : Penang, Malaysia, 21-22 Dec 2015</p>                                                                                                                                                                                                                                                                                                                 |
| 6. | <p><b>Mohd Safirin Karis</b> , Nursabilillah Mohd Ali, Nur Warrissyahidah Badrul Hisham, Amar Faiz Zainal Abidin, "Out-of-Plane Facial Detection Using Variant Dataset Among UTeM Students", Journal of Engineering Science &amp; Technology (JESTEC), 21-22 Dec 2015</p> <p>Place : Penang, Malaysia, 21-22 Dec 2015</p>                                                                                                                                                                                                                                                                                                                                                              |
| 7. | <p>Norsabilillah Mohd Ali, <b>Mohd Safirin Karis</b>, Munawwarah Abd Aziz, Amar Faiz Zainal Abidin, "Analysis Of Frontal Face Detection Performance By Using Artificial Neural Network (ANN) And Speeded-Up Robust Features (SURF) Technique" , Journal of Engineering Science &amp; Technology (JESTEC), 21-22 Dec 2015</p> <p>Place : Penang, Malaysia, 21-22 Dec 2015</p>                                                                                                                                                                                                                                                                                                           |
| 8. | <p><b>Mohd Safirin Karis</b>, Nur Rafiqah Abdul Razif, Nursabilillah Mohd Ali, M. Asyraf Rosli, Mohd Shahrivel Mohd Aras, Mariam Md Ghazaly, "Local Binary Pattern With application To Variant Object Detection: A Survey and Method", IEEE Proceeding</p> <p>Place: Melaka, 4-6 March 2016</p>                                                                                                                                                                                                                                                                                                                                                                                        |
| 9. | <p>Nursabilillah Binti Mohd Ali, W.J. Soon, <b>Mohd Safirin Karis</b>, Nurul Fatiha Johand, Nurliyana Baharin, Amar Faiz Zainal Abidin "Object Classification and Recognition Using BOWs Model", IEEE Proceeding (Accepted)</p> <p>Place: Melaka, 4-6 March 2016</p>                                                                                                                                                                                                                                                                                                                                                                                                                   |

## ii) Local

| Bil | Tajuk |
|-----|-------|
| 1.  |       |

- X. **Senarai Penyeliaan Pelajar PascaSiswazah** (*Sila senaraikan nama pelajar, tajuk dan peringkat pengajian semenjak 2008*)  
**Supervisor for postgraduate students since 2008** (*Please list their names, project title and status*)

| <b>Bil</b> | <b>Nama Pelajar</b> | <b>Durasi (<i>mula – akhir</i>)</b> |
|------------|---------------------|-------------------------------------|
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