

## CURRICULUM VITAE

**1 PERSONAL PARTICULARS**

Name	Tengku Muhammad Hanis Bin Tengku Mokhtar
Address	Kuala Nerus, Terengganu
Age	35 years old
Status	Married
Race	Malay
Email	tengkuhanismokhtar@gmail.com
Website	<a href="https://tengkuhanis.netlify.app/">https://tengkuhanis.netlify.app/</a>

**2 ACADEMIC PROFILES**

Google Scholar	<a href="#">Tengku Muhammad Hanis</a> (h-index: 5, citations: 87)
ORCID	<a href="#">Tengku Muhammad Hanis</a> (ID: 0000-0003-1466-7765)
Scopus	<a href="#">Tengku Muhammad Hanis</a> (h-index: 5, citations: 53)
Web of Science	<a href="#">Tengku Muhammad Hanis</a> (h-index: 4, citations: 44)
ResearchGate	<a href="#">Tengku Muhammad Hanis</a> (h-index: 5, citations: 76)
SciProfiles	<a href="#">Tengku Muhammad Hanis</a>

**3 RESEARCH INTEREST**

- Population-based study – cancer registry
- Medical statistics – survival analysis, Poisson regression, systematic review, meta-analysis
- Machine learning and deep learning
- Text analysis, bibliometrics and scientometrics
- The use of R and Python in health and medical research

**4 EMPLOYMENTS**

Aug 2023 – Present	Founder and lead academic trainer – <a href="#">Jom Research, Malaysia</a> <ul style="list-style-type: none"><li>• Develops modules and materials for workshops</li></ul>
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- Conducts workshops virtually
- Manages preparations for incoming workshops including poster design, workshop promotion, and administration tasks

Nov 2019 – Feb 2023 Graduate research assistant – Universiti Sains Malaysia, Kelantan

- Project financial management
- Project documentation
- Data collection and data cleaning
- Data analysis and publication

June 2017 – Oct 2021 Online map quality analyst – Lionbridge, United States

- Analysed data mainly from online maps and search results
- Corrected errors in maps and search results
- Performed market research on the list of places of interest in Malaysia

May 2016 – Aug 2017 Freelance writer – MIMS Pte Ltd, Singapore

- Researched medical-related topics
- Generated ideas for new content
- Prepared well-structured draft articles

March 2017 – May 2017 Hostel fellow – Universiti Sultan Zainal Abidin, Terengganu

- Managed student activities in the university hostel
- Maintained good discipline and adherence to the university hostel's rules among the students
- Managed student's concerns and issues related to the university hostel

## 5 EDUCATIONS

Feb 2020 – April 2024 PhD (Public Health Epidemiology), Universiti Sains Malaysia  
Thesis: Prediction of breast cancer diagnosis using machine learning in Malaysian women

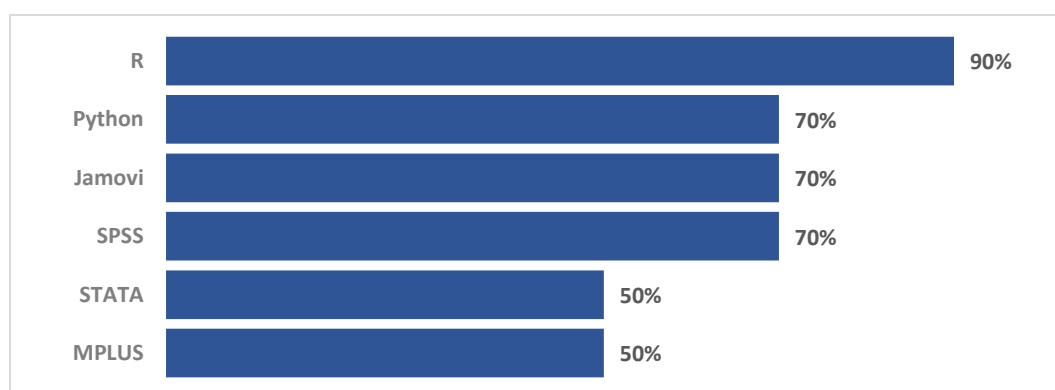
Sept 2017 – July 2019 MSc (Medical Statistics), Universiti Sains Malaysia  
CGPA: 3.30  
Thesis: Relative survival and its prognostic factors of breast cancer patients in Kelantan from 2007 to 2011

Subjects: Principle of epidemiology, clinical epidemiology, basic statistics, intermediate statistics, advanced statistics, critical appraisal and research methodology

Sept 2008 – June 2015	M.B.B.Ch (Bachelor of Medicine and Surgery), Al-Azhar University Result: Good/Jayyid (69.57%)
Jan 2006 – June 2007	Tahfiz certificate, Darul Quran – JAKIM Result: Good/Jayyid
Jan 2006 – June 2007	Sijil Pelajaran Malaysia, SMKA Pahang Result: 5 1A 4 2A 2 3B 1 5C

## 6 SKILLS AND SOFTWARE

### 6.1 Statistical and programming software:



### 6.2 Sample size software:



## 7 PUBLICATIONS

### 7.1 Research articles:

#### 7.1.1 First author:

1. Modelling excess mortality among breast cancer patients in the north-east region of peninsular Malaysia 2007-2011: a population-based study – BMC Public Health [<https://doi.org/10.1186/s12889-019-8113-2>]
2. Net survival differences of breast cancer between stages at diagnosis and age groups in the east coast region of West Malaysia: a retrospective cohort study – BMJ Open [<https://doi.org/10.1136/bmjopen-2020-043642>]

3. The top 100 most-cited publications on breast cancer and machine learning research: a bibliometric analysis – Current Medicinal Chemistry [<https://doi.org/10.2174/0929867328666211108110731>]
4. Factors influencing mammographic density in Asian women: a retrospective cohort study in the northeast region of peninsular Malaysia — Diagnostics [<https://doi.org/10.3390/diagnostics12040860>]
5. Diagnostic accuracy of machine learning models on mammography in breast cancer classification: a meta-analysis — Diagnostics [<https://doi.org/10.3390/diagnostics12071643>]
6. Over-the-counter breast cancer classification using machine learning and patient registration records — Diagnostics [<https://doi.org/10.3390/diagnostics12112826>]
7. Mapping breast cancer research in Malaysia: A scientometric analysis — Medicine & Health [<https://doi.org/10.17576/MH.2022.1702.12>]
8. Risk factors for COVID-19 mortality in Malaysia — Malaysian Journal of Medical Sciences [<https://doi.org/10.21315/mjms2022.29.6.12>]
9. Developing a supplementary diagnostic tool for breast cancer risk estimation using ensemble transfer learning — Diagnostics [<https://doi.org/10.3390/diagnostics13101780>]

#### 7.1.2 Co-author:

1. Measuring time-varying effective reproduction numbers for COVID-19 and their relationship with movement control order in Malaysia — International Journal of Environmental Research and Public Health [<https://doi.org/10.3390/ijerph18063273>]
2. A global bibliometric analysis on antibiotic-resistant active pulmonary tuberculosis over the last 25 years (1996-2020) — Antibiotics [<https://doi.org/10.3390/antibiotics11081012>]
3. Bibliometric analysis of global research activity on premature mortality — Healthcare [<https://doi.org/10.3390/healthcare10101941>]
4. A bibliometric analysis of stroke caregiver research from 1989 to 2022 — International Journal of Environmental Research and Public Health [<https://doi.org/10.3390/ijerph20054642>]
5. The burden of premature mortality from cardiovascular diseases: a systematic review of years of life lost — PLOS ONE [<https://doi.org/10.1371/journal.pone.0283879>]
6. Premature mortality and years of potential life lost from cardiovascular diseases: protocol of a systematic review and meta-analysis — PLOS ONE [<https://doi.org/10.1371/journal.pone.0284052>]
7. The global estimate of premature cardiovascular mortality: a systematic review and meta-analysis of age-standardized mortality rate — BMC Public Health [<https://doi.org/10.1186/s12889-023-16466-1>]

8. Prognostic factors for premature cardiovascular disease mortality in Malaysia: A modelling approach using semi-parametric and parametric survival analysis with National Health and Morbidity Survey linked mortality data — Research Square [<https://doi.org/10.21203/rs.3.rs-3404135/v1>] [Preprint research article]
9. Critical Thinking and Clinical Decision-Making Among Registered Nurses in Clinical Practice: A Systematic Review and Meta-Analysis — SSRN [<https://dx.doi.org/10.2139/ssrn.4736717>] [Preprint research article]

## 7.2 Books:

1. Data analysis in medicine and health using R — Chapman and Hall/CRC [<https://doi.org/10.1201/9781003296775>] (online version available at [https://bookdown.org/drki\\_musa/dataanalysis/](https://bookdown.org/drki_musa/dataanalysis/))

## 8 WEB APPS

1. ShinyBC: breast cancer risk estimator [Available at: <https://tengku-hanis.shinyapps.io/shinyBC/>]

## 9 TALKS, WORKSHOPS AND PRESENTATIONS

### 9.1 Invited lecture sessions:

1. Systematic review topic for Research & Evidence-Based Medicine III (REBMI III) subject — University of Cyberjaya [January 27, 2022]

### 9.2 Webinars (as a speaker):

1. Correlation and regression analysis using R — Jom research [March 11, 2024]
2. Correlation and regression analysis using SPSS & jamovi — Jom research [March 10, 2024]
3. Simple categorical analysis using R — Jom research [February 28, 2024]
4. Simple categorical analysis using SPSS & jamovi — Jom research [February 26, 2024]
5. Simple numerical analysis using R — Jom research [February 21, 2024]
6. Simple numerical analysis using SPSS & jamovi — Jom research [January 31, 2024]
7. How to do a meta-analysis — Jom research [November 23, 2023]
8. How to write a bibliometric paper — Jom research [November 7, 2023]
9. Bibliometric analysis — Biostatistics Consultancy Service, Fakulity of Medicine, Universiti Teknologi MARA [October 31, 2023]
10. Intro to R (for non-coders) — Jom research [October 21, 2023]
11. An introduction to SPSS & jamovi — Jom Research [October 06, 2023]
12. How to conduct a systematic review — Jom research [September 23, 2023]
13. How to write a scientific paper for beginners (for health sciences) — Jom research [September 2, 2023]
14. How to read a paper for beginners — Jom Research [August 17, 2023]

15. How to publish a paper for beginners and newbies (for health sciences) — Jom Research [August 5, 2023]
16. Basic of meta-analysis — Unit of biostatistics and research methodology, Universiti Sains Malaysia [August 18, 2021]
17. An introduction to meta-analysis using R — Universiti Sains Malaysia Epidemiological group [August 5, 2021]
18. An introduction to bibliometric analysis using R — Epidemiology and statistical modelling team, Universiti Sains Malaysia [September 24, 2020]

### 9.3 Conferences (as a speaker):

1. A guide to conducting systematic review on stroke — Malaysian Stroke Conference 2023 [July 27, 2023]
2. Exploring past literature: A bibliometric approach — Malaysian R User Group (MyRUG) [November 27, 2022]
3. An introduction to relative survival analysis using R — Malaysian R User Group (MyRUG) [November 22, 2020]

### 9.4 Workshops (as a speaker):

1. Machine learning in medical research — Unit of biostatistics and research methodology, Universiti Sains Malaysia [May 15, 2024]
2. Data analysis workflow using R — Persatuan Kesihatan Awam Kelantan [September 19, 2023]
3. Workshop on scoping review & bibliometric analysis — Department of Community Medicine, Universiti Sains Malaysia [October 20, 2022]
4. An introduction to meta-analysis in R (Pre-conference workshop) — Malaysian R User Group (MyRUG) [November 6, 2021]
5. Systematic review and meta-analysis using RStudio — Department of Medical Microbiology and Parasitology, Universiti Sains Malaysia [October 18, 2021]

## 10 INVITED PEER REVIEWER

1. Cogent Engineering (1 paper):
  - i. The use of machine learning for mental workload assessment - a bibliometric analysis
2. BMC Women's Health (2 papers):
  - i. Exercise interventions on body composition and quality of life of overweigh/obese breast cancer survivors a meta-analysis
  - ii. Factors influencing the prevalence of cervical cancer screening in Malaysia A nationwide survey
3. BMC Public Health (2 papers):

- i. Prevalence and sociodemographic predictors of high-risk vaginal Human Papillomavirus Infection: findings from a public cervical cancer screening registry
  - ii. The hidden impact of alcohol on young victims: an analysis of alcohol-related police offences resulting in hospitalisation
4. Digital Health (1 paper):
  - i. Firefly-SVM predictive model for breast cancer subgroup classification with clinicopathological parameters
5. Education in Medicine Journal (1 paper):
  - i. A meta-analysis of e-learning interventions in teaching evidence-based practice

## **11 ONGOING RESEARCH PROJECTS**

1. A scoping review of breast cancer and machine learning research
2. Development of a web app for effect size calculation
3. Systematic review and meta-analysis of auricular acupressure (in collaboration with Dr Chen Xin Wee from the Faculty of Medicine, Universiti Teknologi MARA)
4. Systematic review and meta-analysis of nalbuphine (in collaboration with Dr Mohd Boniami Yazid and his student from the Department of Emergency Medicine, Universiti Sains Malaysia)
5. Systematic review and meta-analysis of tramadol (in collaboration with Dr Mohd Boniami Yazid and his student from the Department of Emergency Medicine, Universiti Sains Malaysia)

## **12 AWARDS AND ACHIEVEMENTS**

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|------|---|
| 2023 | Postgraduate publishing incentives award x 4 – a total amount of RM 3,250 |
| 2022 | Postgraduate publishing incentives award x 3 – a total amount of RM 3,750 |
| 2021 | Postgraduate publishing incentives award x 1 – a total amount of RM 1,500 |

## **13 OTHER RESEARCH ACTIVITIES**

1. Situation analysis and modelling of COVID-19 cases in Malaysia – Part of epidemiology and statistical modelling team, Universiti Sains Malaysia
2. Founded Machine learning and statistical analysis study group – YouTube channel: Study Group-ML-Stat  
[[https://www.youtube.com/channel/UCeCjmi\\_jpjOOPdxF7ku9H3g](https://www.youtube.com/channel/UCeCjmi_jpjOOPdxF7ku9H3g)]
3. Actively writing a non-formal academic blog at <https://tengkuhanis.netlify.app/post/>

**14 REFERENCES****Reference 1:**

Name: Prof Dr Kamarul Imran Musa

Position: Professor at the Department of Community Medicine, School of Medical Sciences, Universiti Sains Malaysia

Email: drkamarul@usm.my

Relationship: Main supervisor (PhD study)

**Reference 2:**

Name: Prof Dr Rosni Binti Abdullah

Position: Professor at the School of Computer Sciences, Universiti Sains Malaysia

Email: rosni@usm.my

Relationship: Co-supervisor (PhD study)

**Reference 3:**

Name: Dr Wan Nor Arifin Bin Wan Mansor

Position: Senior lecturer at the Biostatistics and Research Methodology Unit, School of Medical Sciences, Universiti Sains Malaysia

Email: wnarifin@usm.my

Relationship: Lecturer (MSc study)