

TOP RESEARCH SCIENTISTS MALAYSIA 2022

NOW OPEN FOR APPLICATION

IF YOU ARE

A Malaysian research scientists who are working in Malaysia with outstanding achievements in Science, Technology, Innovation and Economy (STIE) and Industrial research, have been nationally and internationally recognised and actively involve in research in the last five years with at least 10 years cumulative contribution towards the progression of STIE.

APPLY NOW AT [MYTOPSCIENTISTS.ORG](https://mytopscientists.org)
CLOSING DATE: 8 MAY 2022



The TRSM Secretariat
Academy of Sciences Malaysia
20th Floor, West Wing, MATRADE Tower
Jalan Sultan Haji Ahmad Shah
50480 Kuala Lumpur.
Tel: 03 6203 0633
Fax: 03 6203 0634
Email:
dayana@akademisains.gov.my
afiah@akademisains.gov.my
pooveneswary@akademisains.gov.my

A resource for academia, industries and social scientists

The Top Research Scientists Malaysia

initiative & database aims to recognise &

showcase the accomplishments of

Malaysian research scientists as role

models of excellence, mentors to the next

generation and leaders to forge ahead with

the STIE agenda of the nation.

For further information, kindly contact:

The TRSM Secretariat

20th Floor, West Wing, MATRADE Tower,
Jalan Sultan Haji Ahmad Shah off
Jalan Tuanku Abdul Halim,
50480 Kuala Lumpur.

Contact:

Nur Dayana Razmi (dayana@akademisains.gov.my)

Afiah Nasuha Aznan (afiah@akademisains.gov.my)

Pooveneswary Nagaiah (pooveneswary@akademisains.gov.my)

Phone: +603 6203 0633 Fax: +603 6203 0634



Think Science . Celebrate Technology . Inspire Innovation

**TOP
RESEARCH
SCIENTISTS
MALAYSIA**

TRSM

an Academy of Sciences Malaysia initiative

The Top Research Scientists Malaysia (TRSM) is an ASM initiative in line with its focus on fostering a culture of excellence in Science, Technology, Innovation and Economy (STIE).

The initiative aims to identify and recognise leading research scientists in Malaysia. The output of this initiative is a TRSM profile that would provide a centralised point of reference on leading scientists in Malaysia along with information on their research areas. The convention of the best minds in the country would create a hub for knowledge dissemination that can spur the growth of STIE in Malaysia.

Malaysian research scientists contribute significantly to the economic growth of the nation via generation and dissemination of knowledge, wealth creation and the productive pursuit of scientific excellence for the benefit of humanity. In relation to this, the TRSM initiative intends to acknowledge their contributions and showcase the accomplishments of Malaysian research scientists as the role models of excellence, mentors to next generation of scientists and leaders to forge ahead with the STIE agenda of the nation.

The TRSM initiative would also be a good reference guide to facilitate nomination of outstanding Malaysian candidates for various national and international STIE awards.

Selection Criteria & Scoring Mechanism

Privileges

- Featured profile in leading media
- Featured in ASM Awards & Recognitions system and database for promotion and positioning
- Featured in ASM's Expert Network Book

The Top Research Scientists Malaysia (TRSM) will be selected through an objective and standardised scoring mechanism based on the following criteria:

Section A: Impact of Research Outputs

Section B: Knowledge Generation

Section C: Knowledge Dissemination

Scoring Mechanism

a. ASM Discipline Groups except Social Sciences & Humanities and Industrial Research group:

Section A: 40%

Section B: 30%

Section C: 30%

b. Social Sciences & Humanities and Industrial Research Group:

Section A: 60%

Section B: 20%

Section C: 20%

Eligibility

- The recognition is given to Malaysian research scientists, social scientists and industrial researchers working in Malaysia whose outstanding achievements in STIE and have been nationally and internationally recognised.
- At the time of application, the candidate should be actively involved in research in the last 5 years with at least 10 years cumulative contribution towards the progress of STIE
- The candidate should be of high ethical standing
- ASM Fellows are not eligible to apply.

Application

- Online application is open throughout the year at **www.mytopscientists.org**.
- The 2022 TRSM applications will be closed on **8 May 2022**.

Objectives

- To develop a pool of leading Malaysian research scientists
- To recognise & showcase leading Malaysian research scientists as drivers of the national STIE agenda
- To identify leading Malaysian research scientists with pioneer mindset to move Malaysia toward becoming an innovation-led economy
- To build critical mass of globally prominent Malaysian research scientists

SUMMARY GUIDELINES OF TOP RESEARCH SCIENTISTS MALAYSIA (TRSM) APPLICATION

How to access TRSM website?

Kindly type in www.mytopscientists.org at the web browser and press “Enter”.

How to register for Applicant account?

1. Click “REGISTER” button. Complete all the required information and choose “Applicant” as type of user.
2. An activation link will be sent to your registered e-mail. Kindly check your e-mail and click on the provided activation link to activate your account.
3. Login to the system using your registered e-mail and password.

How to input data into the ASM Awards & Recognition Database as TRSM Applicant?

1. Complete the Personal Particular section.
2. Click “Application” tab, and then “+ Create New Application”.
3. Please download “User Manual Handbook” for a comprehensive instruction.
4. Choose Category of Application as “Top Research Scientists Malaysia (TRSM)” and click “Create” button.
5. The TRSM application will appear in “Application List”, then click “View Details” button.
6. There are five (5) sections in Application Dashboard that need to be filled in as follows:
 - Personal Particular;
 - Section A: Impact of Research Output;
 - Section B: Knowledge Generation;
 - Section C: Knowledge Dissemination; and
 - Declaration.
7. Please fill in your information and data at the respective sub-criteria by clicking on the fields and typing in the data.
8. All the input of data must be detailed out in “Input List” correspond to the input data in Sections A, B and C (e.g. List of publications, intellectual property rights and scientific presentations). Then click “Save”.
Note: Input List cannot be saved in the form of a table. Please fill in zero (0) if there is no information for any respective field. Your application will be considered as incomplete if there are blank fields in the sub-criteria.
9. Click “Save” button at the bottom of the page on each Section to ensure all the data is captured by the system.
10. Click “Back to Dashboard” to return to the Application Dashboard.
11. For the Declaration section, please tick on the statement given and download the Institutional Endorsement form. Click “Choose File” of the completed institutional endorsement form and click “Save”.
12. Please ensure all the Sections tabs are in Green colour before submitting your application.
13. Please click “Submit Application” button at the bottom of the page to submit application.
14. Kindly click on “Print/Export Application” button to save or print your application.
15. Please make sure all the information is completely entered and correct before submitting your application as the input data cannot be updated once submitted.

****FOR A MORE COMPREHENSIVE GUIDELINES ON REGISTRATION AND INPUT OF DATA INTO THE ASM AWARDS & RECOGNITION DATABASE, PLEASE VISIT THE WEBPAGE (www.mytopscientists.org) FOR THE USER MANUAL.**

TRSM

TOP
RESEARCH
SCIENTISTS
MALAYSIA

an Academy of Sciences Malaysia initiative



USER HANDBOOK

A comprehensive guide on participating in TRSM



Academy of Sciences Malaysia
2022

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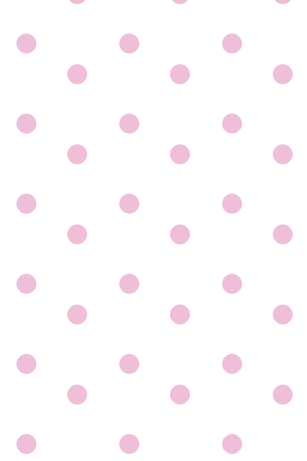
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VISION

To build a culture of excellence in scientific research



MISSION

To develop a knowledge hub of top-notch Malaysian Research Scientists

INTRODUCTION

The Top Research Scientists Malaysia (TRSM) is an ASM initiative in line with its focus on fostering a culture of excellence in Science, Technology and Innovation (STI). This initiative aims to identify and recognise the local leading research scientists in Malaysia. The output of this initiative is to establish and showcase the Top Research Scientists Malaysia profile that would act as a central point of reference on the leading Malaysian research scientists and their research background. The convention of the best minds in the country would create a hub for knowledge dissemination that can spur the growth of STIE in Malaysia.

Malaysian research scientists contribute significantly to the economic growth of the nation via the generation and dissemination of knowledge, wealth creation and the productive pursuit of scientific excellence for the benefit of humanity. In relation to this, the TRSM initiative intends to acknowledge the Top Research Scientists Malaysia contributions and showcase their accomplishments as role models of excellence, mentors to the next generation and leaders to forge ahead with the STIE agenda of the nation.

The accumulation of expertise through this initiative would simplify the process for stakeholders to identify experts in the National R&D priority areas and gather relevant input on the talent that can lead STIE's initiative in priority areas. The Top Research Scientists Malaysia profiles also would be a good resource to facilitate networking of academia, industries, international scientific community and STIE organisations toward linking the top-notch STIE expertise in Malaysia nationally and internationally for knowledge exchange and research collaboration.

OBJECTIVES

1. To develop a pool of leading Malaysian research scientists.
2. To recognise and showcase leading Malaysian research scientists as drivers to the National STIE agenda.
3. To identify leading Malaysian research scientists with pioneer mindsets to move Malaysia toward becoming an innovation-led economy.
4. To build a critical mass of globally leading Malaysian research scientists.

SIGNIFICANCE

The initiative aims to showcase the leading Malaysian research scientists who can serve the following purposes:

1. Role models of excellence.
2. Mentors to the next generation of scientists.
3. Leaders to implement the National STIE agenda.
4. Experts to strengthen industry and stakeholders' confidence in research capacity and capability.
5. Think tank and advisors to the National STIE policy and decision-making.
6. Communicators and ambassadors.
7. Science and technology project evaluators.
8. Reference points for STIE linkages at the national and international levels.
9. Agents of wealth creation and societal well-being.

USABILITY

The TRSM Database is envisaged to facilitate the following:

1. Expertise search.
2. Profiling researchers.
3. Expertise clustering.
4. Promotion and positioning of the top Malaysian research scientists.
5. Facilitating business networking and industry matching.
6. Promoting research networking and matching with other institutions.
7. Determining the impact of top Malaysian researchers.
8. Gateway for international grant agencies to find research partners in Malaysia.
9. Identification of Malaysian research leaders in STIE to move Knowledge-economy (K-economy).
10. Benchmarking national strengths in STIE.
11. Providing information to facilitate nomination for STIE awards.
12. Showcasing 'Who's Who' as innovation leader and academic leaders.
13. Facilitating informed decisions on funding and policy.
14. Identifying the gaps in demand and supply of niche research areas and talent development.
15. Attracting prospective investors and facilitating postgraduate linkages for R&D activities.

ELIGIBILITY

1. Research scientists with Malaysian citizenship working in Malaysia whose outstanding achievements in STIE and have been nationally and internationally recognised from:
 - a. Public and Private Institutions of Higher Learning (IHLs), Public and Private Research Institutes (RIs), Civil Society Organisations (CSOs), Industries or STIE Bodies.
 - b. All research areas e.g. fundamental sciences, applied sciences, social sciences & industrial applications.
2. At the time of application, the candidate must be actively involved in research (research activities during the last five (5) years should be reflected in their CV) with at least 10 years of accumulative contribution towards the progress of STIE.
3. The candidate should be of high ethical standing (without any criminal or bankruptcy record).
4. Since 2015, ASM Fellows are not considered for the Top Research Scientists Malaysia recognition.

APPLICATION PROCESS/NOMINATION MECHANISM

1. ASM will Call for Input of Data and the deadline of applications for 2022 TRSM is on 8 May 2022.
2. Application is through an online platform at ASM Awards & Recognitions system and database at www.mytopscientists.org.
3. Applications can be made by individuals or through their respective entities:
 - a. Public and Private Institutions of Higher Learning (IHLs).
 - b. Public and Private Research Institutes (RIs).
 - c. Civil Society Organisations (CSOs).
 - d. Industries or STIE Bodies.

Note: No limit in the number of nominations by an entity but each application must be submitted individually by the candidates.
4. Application documents:
 - a. TRSM application form from ASM Awards & Recognitions system and database.
 - b. Institutional Endorsement form (when applicable/appropriate).
5. Only complete Application Documents will be considered for evaluation by ASM.

EVALUATION PROCESS

1. Applications will be evaluated by the appointed TRSM Selection Panel of eminent scientists based on the standardised TRSM Selection Criteria and scoring mechanism.
2. The decision of the TRSM Selection Panel is final.
3. Only shortlisted applicants will be notified of the result.

EVALUATION PROCESS



Figure 1: Application and evaluation process of TRSM

PRIVILEGES

Those who have been recognised as Top Research Scientists Malaysia may benefit from the following privileges:

1. Profiled in leading media.
2. Featured in the ASM Awards & Recognitions system and database for promotion and positioning.
3. Featured in ASM Expert Network Book.

SELECTION CRITERIA AND SCORING MECHANISMS

The Top Research Scientists Malaysia (TRSM) will be selected through an objective and standardised TRSM Selection Criteria and scoring mechanisms as follows:

SELECTION CRITERIA

Section A: Impact of Research Output

1. Cumulative citations received and Hirsch-index in either Thompson Reuters, WOS or Scopus database.

2. Commercialisation Attained:

- a) Technologies commercialized with sales and/or royalties.
- b) Spin-off or joint venture companies resulting from the commercialisation of IPR.
- c) Cumulative gross sales and/or royalties from commercialisation of R&D products (RM).

3. Academic Awards from Professional, Learned Bodies and Government:

- a) International.
- b) National.

4. Recognitions and/or Professional Leadership (including appointment as a Chair, Visiting Professorship, Reviewer of grant proposals from international funding bodies & papers for International journal, Editors of books/journals/citation-indexed conference/proceedings/ Technical Guideline):

- a) Number of recognitions and membership in international bodies or professional associations.
- b) Number of recognitions and membership in national bodies or professional associations.

5. Lead Consultant Projects with Monetary Rewards:

- a) Number of consultancy projects:
 - International.
 - National.
- b) Cumulative value of consultancy projects (RM).

6. Impact of Research toward Novel Knowledge, Wealth Creation and/or Societal Wellbeing. This requires a description of not more than 250 words, the impact of your research that reflects excellence, relevance and innovative leadership resulting in economic benefits or enhancement health or education or quality of life. This summary should reflect how the scientist's contribution has translated into wealth creation and societal well-being. This will be considered an important part of the evaluation.

Section B: Knowledge Generation

1. Leadership in research:

- a) Total number of projects as Principal Investigator (PI):
 - International.
 - National.
- b) Cumulative value of grants received as PI (RM):
 - International.
 - National.

Section C: Knowledge Dissemination

1. Publications:

- a) Publications in indexed journals, book(s), chapters in book(s), monograph(s) and/or article(s) in professional or scientific magazine(s) as corresponding author.
- b) Publications in the indexed journal as non-corresponding author.

2. Intellectual Property Rights (IPR)

- a) International:
 - Patent granted.
 - Patent pending.
- b) National:
 - Patent granted.
 - Patent pending.

3. Scientific Presentations:

- a) International:
 - Keynote speaker.
 - Plenary speaker.
- b) National:
 - Keynote speaker.
 - Plenary speaker.
- c) Number of appearances as Guest Speaker and/or Panellist in mass media in the area of expertise.

4. Talent Development

- a) Graduated PhD students (only main supervision will be considered for Institute of Higher Learnings staff).
- b) Graduated Master students (only main supervision will be considered for Institute of Higher Learnings staff).
- c) Graduated Research Trainees and/or Research Officer supervised.

SCORING MECHANISM

TRSM Selection Criteria	Maximum Scores (%)	ASM Discipline Groups
Section A: Impact of Research Output	40	1. Biological, Agricultural & Environmental Discipline [BAES]
Section B: Knowledge Generation	30	2. Chemical Sciences Discipline [CS]
Section C: Knowledge Dissemination	30	3. Engineering Sciences Discipline [ES]
		4. Information Technology & Computer Sciences Discipline [ITCS]
		5. Mathematics, Physics & Earth Sciences Discipline [MPES]
		6. Medical & Health Sciences Discipline [MHS]
		7. Science & Technology Development and Industry Discipline [STDl] <i>(except industry)</i>

TRSM Selection Criteria	Maximum Scores (%)	ASM Discipline Groups
Section A: Impact of Research Output	60	1. Social Sciences & Humanities Discipline [SSH]
Section B: Knowledge Generation	20	2. Industrial Research Group
Section C: Knowledge Dissemination	20	

The above TRSM Selection Criteria and scoring mechanisms will be used to identify the Malaysian leading research scientists who are leaders in their area of expertise with well-balanced STIE contributions and impacts. The generation of knowledge signifies the ability to help research projects and procure significant national and international research funds. The dissemination of knowledge refers to prolific contributions in the area of scientific publications, IPR and talent development. The impact of research outputs recognises the achievements of the scientists through national and international awards or bodies as well as their contributions towards wealth creation and societal well-being.

GLOSSARY

SECTION A: IMPACT OF RESEARCH OUTPUT			
No.	Sub-criteria	KPI	Glossary
1	Cumulative citations received in either Thomson Reuters, WOS or Scopus database	Cumulative citations received	1. Cumulative citations received only in either Thomson Reuters, WOS, or Scopus database. 2. Hirsch-index score should also be indicated.
	*Hirsch-index score	Hirsch-index score	
2	Commercialisation Attained	Number of technologies commercialised with sales and/or royalties	1. Number of Technologies Licensed refers to a number of license agreements that have been signed. It must have statements on the sales and/or royalties' income. 2. Spin-off and/or joint-venture companies resulting from the commercialisation of IPR refer to any incorporated entities that use intellectual properties arising from research output. 3. Values of cumulative gross sales and/or royalties from commercialisation of R&D products (RM) refer to cumulative gross sales and/or royalties received by the licensed company. The client must co-relate with IPR.
		Number of the spin-offs and/or joint-venture companies resulting from the commercialisation of IPR	
		Value of cumulative gross sales and/or royalties from commercialisation of R&D products (RM)	
3	Academic Awards from Professional, Learned Bodies and Government	Number of International academic awards received	Academic Awards refers to awards conferred in recognition of scientific excellence from Professional, Learned Bodies and Government (e.g. IDB Award in Science and Technology, Khwarizmi Award, Anugerah Akademik Negara, Merdeka Award, Anugerah Inovasi Negara etc.) but excluding institutional recognitions and non-competitive awards.
		Number of National academic awards received	
4	Recognition and/or Professional Leadership (including appointments as a Chair, Visiting Professorship, reviewer of grant proposals from international funding bodies & papers for international journal, editors of books/journals/ citation-indexed conference proceedings/Technical Guideline)	Number of recognitions and memberships in International bodies/professional associations	Recognitions or Professional Leadership at International and National levels including appointments as a Chair, Visiting Professorship, reviewer of grant proposals from international funding bodies & papers for international journal, editors of books/journals/citation-indexed conference proceedings/Technical Guideline.
		Number of recognitions and memberships in National bodies/professional associations	
5	Lead consultant in projects with monetary rewards	Number of International consultancy projects	Lead consultant projects with monetary rewards, in the area of expertise, refers to those carried out for organisations other than their institution.
		Number of National consultancy projects	
		Cumulative value of consultancy projects (RM)	
6	Impact of Research towards Novel Knowledge, Wealth Creation and/or Societal Well Being	Describe in not more than 250 words the impact relates to wealth creation and societal well being	This requires a description of not more than 250 words, the impact of your research that reflects excellence, relevance and innovative leadership resulting in economic benefits or education or quality of life. This summary should reflect how the scientist's contribution has translated into wealth creation and societal well-being. This will be considered an important part of the evaluation.

GLOSSARY

SECTION B: KNOWLEDGE GENERATION			
No.	Criteria	KPI	Glossary
1	Total number of the research project(s) as Principal Investigator (excluding institutional grant)	International	<p>1. International grants are competitive funds open to the international community (e.g. Khazanah International Grant, WHO, FAO, EU, etc.).</p> <p>2. National grants are competitive funds from the Government, Ministries, Industries, Professional Bodies and Foundations that are open to Malaysians only (e.g. MOSTI Grants, MOHE Grants, Khazanah National Grant, MAKNA Grant, Malaysian Toray Science Foundation Grant, FELDA Grant, Intel Malaysia Grant, Shell Malaysia Grant, etc.)</p> <p>3. Institutional grants are funds open only to members of an institution (e.g. Research University Grants, Short-term grants, Seed funds, or institutional research funds).</p> <p>4. Principal Investigators are researchers leading the research.</p>
		National	
2	Cumulative value of grant(s) received as Principal Investigator (excluding institutional grant in RM)	International	
		National	

GLOSSARY

SECTION C: KNOWLEDGE DISSEMINATION			
No	Sub-criteria	KPI	Glossary
1	Publications	Number of publications in indexed journals as the corresponding author	<p>1. Indexed journals are journals listed only in the Thomson Reuters, WOS, or Scopus database.</p> <p>2. Book(s) and/or monograph(s) refer to original academic writings resulting from research or original construct in the area of expertise that is referred and/or edited and published by a reputable publisher (excluding theses).</p> <p>3. Chapters in book(s) as corresponding author (excluding proceedings and own authored books).</p> <p>4. Article(s) in professional and/or scientific magazine(s) within the area of expertise.</p>
		Number of publications in indexed journals as non-corresponding author	
		Number of the book(s) and/or monograph(s) as corresponding author (academic original writings only)	
		Number of chapters in the book(s) as corresponding author (excluding proceedings and own authored books)	
		Number of article(s) in professional and/or scientific magazine(s) as the corresponding author	
2	Intellectual Property Right (IPR)	Number of patent(s) granted	Patent(s) granted in every perspective country is counted as an independent patent(s) (WIPO Database of Intellectual property Legislative Texts: Paris Convention for the Protection of Industrial Property).
		Number of the patent(s) pending	
		Number of Industrial Design(s), Copyright(s) and/or Trademark(s)	
3	Scientific Presentations	Number of presentations as invited Keynote Speaker (International)	<p>1. International presentations in the area of expertise as Keynote Speaker or Plenary Speaker refers to presentations made outside Malaysia or at international conferences organised in Malaysia.</p> <p>2. National presentations in the area of expertise as Keynote Speaker or Plenary Speaker, refers to presentations at National conferences (excluding institutional or departmental colloquium, seminars, etc.).</p> <p>3. Invited Guest Speaker and/or Panellist in the area of expertise.</p>
		Number of presentations as invited Keynote Speaker (National)	
		Number of presentations as invited Plenary Speaker (International)	
		Number of presentations as invited Plenary Speaker (National)	
		Number of appearances as Guest Speaker and/or Panellist in mass media in the area of expertise	
4	Talent Development	Number of graduated PhD students (research mode)	<p>1. Postgraduate supervision refers to supervising graduated PhD or Master level students.</p> <p>Co-supervision of graduated PhD or Master is only applicable for Research Institute or Industry.</p> <p>2. Supervision of Research Trainees and/or Research Officers refer to R&D supervision of those with at least a bachelor's degree Holder.</p> <p>3. Mixed mode is defined by at least 70% of research.</p>
		Number of graduated PhD students (mixed mode with at least 70% research)	
		Number of graduated Master students (research mode)	
		Number of graduated Master students (mixed mode with at least 70% research)	
		Number of graduated Research Trainees and/or Research Officer supervised	



For further information, kindly contact

The TRSM Secretariat

Academy of Sciences Malaysia
Level 20, West Wing, MATRADE Tower
Jalan Sultan Haji Ahmad Shah
off Jalan Tuanku Abdul Halim
50480 Kuala Lumpur

P | 603 6203 0633 **F** | 603 6203 0634

To connect with us, visit www.mytopscientists.org

or email to dayana@akademisains.gov.my / afiah@akademisains.gov.my / pooveneswary@akademisains.gov.my