



INSTITUT PENYELIDIKAN AIR KEBANGSAAN MALAYSIA (NAHRIM)
KEMENTERIAN ALAM SEKITAR DAN AIR (KASA)



PROFIL PENYELIDIKAN NAHRIM

NAHRIM Research Profile

2020/21

(Diterbitkan oleh Bahagian Perancangan Korporat)



INSTITUT PENYELIDIKAN AIR KEBANGSAAN MALAYSIA (NAHRIM)
KEMENTERIAN ALAM SEKITAR DAN AIR (KASA)

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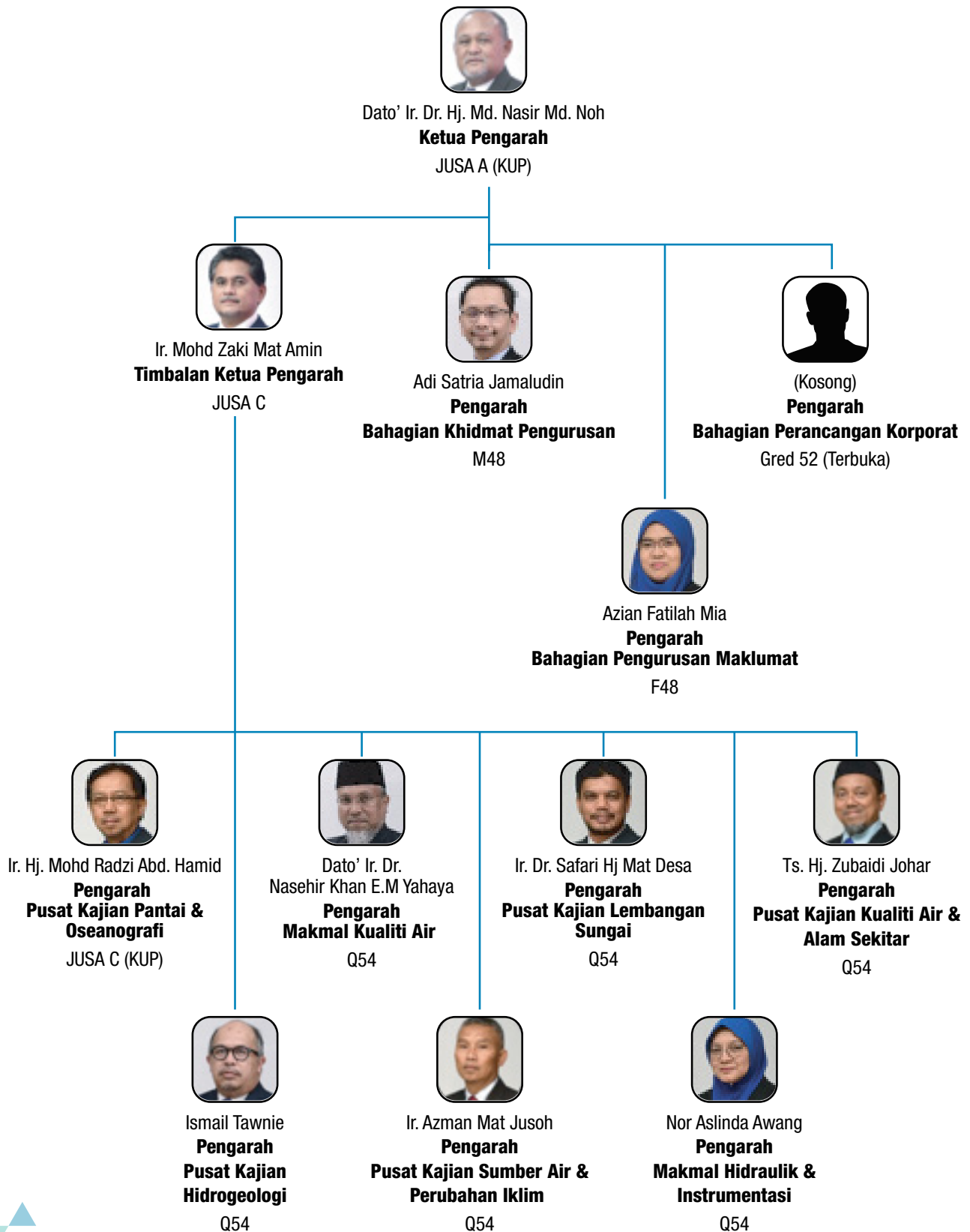
BIDANG UTAMA R&D DAN PERKHIDMATAN

AIR	PANTAI & OSEANOGRAFI	PERSEKITARAN AIR
		
Kitaran Air	Muara Sungai & Morfologi Pantai	Analitikal Kualiti Air
Bekalan Air	Oseanografi	Teknologi Rawatan Air
Air Hujan	Jeti & Pelabuhan	Penyelidikan Saliran
Air Permukaan	Hidrodinamik Tanaman Bakau	<i>Renewable Energy</i>
Air Tanah	Kenalkan Aras Laut	Pembetulan
Tasik / Empangan		<i>Integrated Lake Basin Management</i>
		<i>National Lake Water Quality Standards (NLWQS)</i>
Hidroiklim		
Pemodelan Fizikal & Numerikal		
Pengumpulan, Analisis & Pemantauan Data		
Pembangunan Produk dan Teknologi Air		

MEMORANDUM PERSEFAHAMAN (MoU)

RAKAN STRATEGIK





PERJAWATAN NAHRIM SEHINGGA OKTOBER 2020

PERJAWATAN YANG DILULUSKAN		PENGISIAN	
TETAP	Pengurusan Tertinggi	2	2
	Pengurusan dan Professional	71	59
	Kumpulan Pelaksana	100	91
JUMLAH		173	152



BIDANG PENGKHUSUSAN (P&P)			
Kelayakan	Kejuruteraan	Sains	Sains Sosial & Admin
PhD	9	4	0
Serjana	15	16	1
Ijazah Serjana Muda	8	6	2
Jumlah	37	26	3

- 58 Pegawai Penyelidik
- 43 Penolong Pegawai Penyelidik
- 10 Pekerja Sokongan

Peranan Pusat Penyelidikan dan Makmal

Pusat Penyelidikan dan Makmal	Peranan
Pusat Kajian Sumber Air dan Perubahan Iklim	- Menjalankan penyelidikan dan pembangunan dalam bidang perubahan iklim dan sumber air; - Menjalankan penyelidikan dan pembangunan dalam bidang penuaian air hujan; dan - Menjalankan penyelidikan dan pembangunan ke atas model hidrologi dan mengoptimumkan penggunaan sumber air.
Pusat Kajian Pantai dan Oseanografi	- Menjalankan penyelidikan dan pembangunan dalam pengurusan pantai; - Membangunkan Data Marin Negara; dan - Berperanan sebagai Pusat Fokal Kebangsaan dalam penyelidikan kejuruteraan pantai.
Pusat Kajian Lembangan Sungai	- Memberi khidmat penyelidikan dan pembangunan ke atas air permukaan secara khusus dan pemuliharaan sungai dan lembangan sungai secara amnya; - Sebagai pusat rujuk kebangsaan bagi air permukaan; dan - Menjalankan penyelidikan, pembangunan dan pengurusan lembangan sungai berteraskan Pengurusan Sumber Air Bersepadu (IWRM)

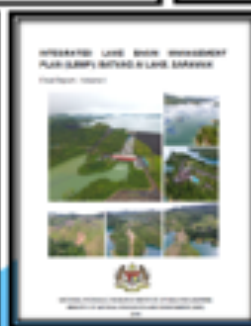
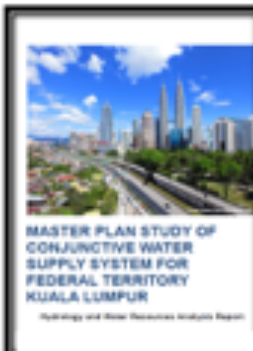
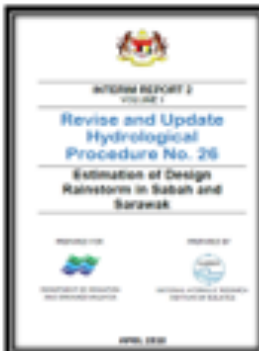
Peranan Pusat Penyelidikan dan Makmal

Pusat Penyelidikan dan Makmal	Peranan
Pusat Kajian Kualiti Air dan Alam Sekitar	• Menjalankan penyelidikan dan pembangunan teknologi rawatan air; • Melaksanakan penyelidikan dan pembangunan kualiti air sungai dan tasik; • Membangunkan inventori air sungai dan tasik; dan • Menjalankan penyelidikan dan pembangunan dalam ekosistem air; dan
Pusat Kajian Hidrogeologi	• Menjalankan penyelidikan dan pembangunan dalam pengurusan air tanah; • Menjalankan penyelidikan dan pembangunan dalam pengurusan air tanah; • Menjalankan penyelidikan dan pembangunan mengenai penilaian persekitaran air tanah dan kesan malapetaka geologi (geohazard) akibat pengepaman berlebihan ke atas aliran air tanah;
Makmal Hidraulik dan Instrumentasi	• Menjalankan penyelidikan dan pembangunan asas sertagunaan melalui pemodelan fizikal dalam pelbagai bidang di antaranya empangan, sungai dan pantai, serta samudera; dan • Menawarkan perkhidmatan dan kemudahan makmal untuk pemodelan fizikal selaras dengan ISO 9001:2015 Pengurusan Pemodelan Fizikal dalam Kejuruteraan Hidraulik.
Makmal Kualiti Air	• Pengurusan makmal berakreditasi yang diiktiraf, mengkoordinasi pelaksanaan sistem kualiti berasaskan MS ISO/IEC 17025 dan garis panduan Skim Akreditasi Makmal Malaysia (SAMM); • Penawaran perkhidmatan analitikal kualiti air; dan • Pangkalan data bagi pemusatan, penyimpanan dan pembekalan data-data analisis kualiti air.

PENYELIDIKAN AIR



- Analisis Risiko Kawasan Tadahan
- Bencana Alam (Banjir & Kemarau Ekstrem)
- Sekuriti & Kelestarian
- Hidrologi / Hidroiklim
- Bekalan Air Alternatif
- Kerentanan & Adaptasi
- Urbanisasi & Gunatanah
- Hakisan, Pengerukan dan Pemendapan
- Sistem perparitan dan pengaliran bersepadu
- Kuantiti Kawasan Tadahan



PENYELIDIKAN PANTAI & OSEANOGRAFI



- Pengurusan Kelestarian, Keselamatan & Aset Pantai Negara
- Kenaikan Aras Laut
- Analisis Risiko Muara dan Pantai
- Kerentanan & Adaptasi
- Hakisan dan Pemendapan
- Penerobosan Air Masin
- Suhu Permukaan Lautan
- Hidrodinamik Pantai
- Kesesuaian Tanaman Bakau
- Ekosistem Habitat Marin
- Aquifer Pantai & Pulau



PENYELIDIKAN PERSEKITARAN AIR



- ◆ Pencemaran Kimia & Mikrobiologi
- ◆ Kualiti Air
- ◆ Pengurusan Lembangan Sungai / Tasik
- ◆ Pengurusan Ekosistem & Konservasi Tasik, Empangan & Kawasan tadahan
- ◆ *Emerging Contaminants / Endocrine Disrupting Chemicals (EDCs)*
- ◆ Biodigester
- ◆ Tanah Bencah (Wetland)
- ◆ Taman Hujan (Rain Garden)
- ◆ Standard Kualiti Air Tasik/Empangan Negara



PENYELIDIKAN MERENTAS BIDANG

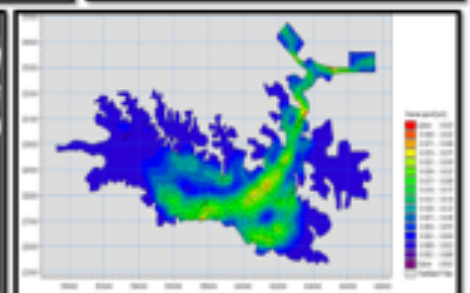
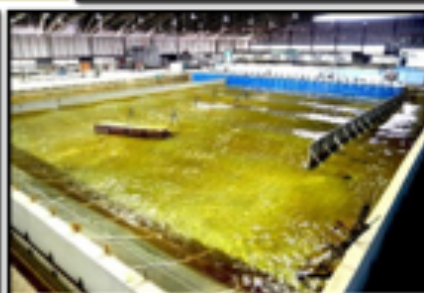
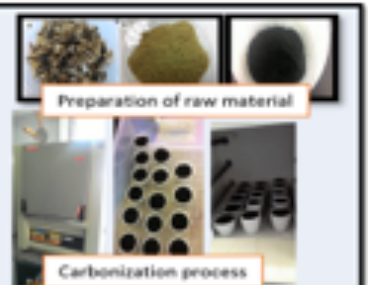
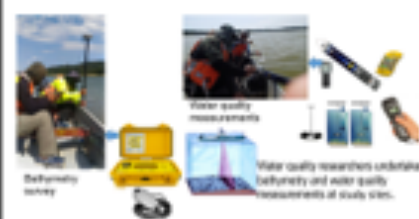
Hidroiklim

Pemodelan Fizikal & Numerikal

Pengumpulan, Analisis & Pemantauan Data

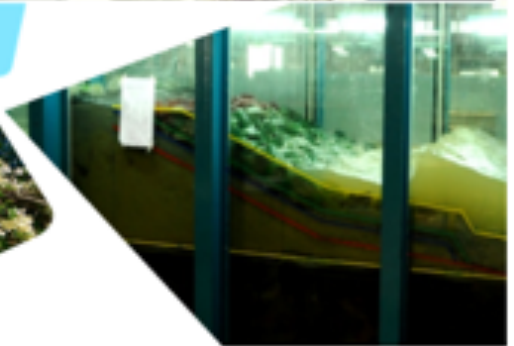
Pembangunan Produk dan Teknologi Air

BATHYMETRY AND WATER QUALITY MEASUREMENTS



KEMUDAHAN MAKMAL HIDRAULIK & INSTRUMENTASI

DIAKREDITASIKAN
MS ISO 9001:2015



MAKMAL KUALITI AIR



MAKMAL KUALITI AIR
AKREDITASI
MS ISO/IEC 17025
ANALISIS KIMIA DAN
MIKROBIOLOGI



MS ISO/IEC 17025
TESTING
SAMM NO. 811



KUALITI AIR





Makmal Kualiti Air / Water Quality Laboratory





Dato' Ir. Dr. Hj. Md. Nasir bin Md. Noh
Director General

EDUCATION

PhD	Tottori University, PhD in River Engineering Sediment Transport	2002
MSc	Tottori University, Master in River Engineering	1999
BSc	Louisiana State University, Civil Engineering	1985

HONORS AND AWARDS

Title of Award

• Darjah Indera Mahkota Pahang (DIMP) – HRH Sultan Pahang	2016
• Anugerah Perkhidmatan Cemerlang	2005 & 2010

EXPERIENCE

- Joined the Public Service in 1989 as a civil engineer at Western Johor Agricultural Development Project (IADP), Batu Pahat from 1989 to 1996
- Attached to River Engineering Division DID HQ 2002 to 2003
- Appointed to Senior Engineer River Engineering Division 2003 to 2005
- Attached to Urban Drainage Division DID HQ 2005 to 2010
- Appointed Deputy Director Urban Drainage Division in 2008
- Appointed as Deputy Director DID Federal Territory Kuala Lumpur 2011
- Appointed as Deputy Director River Engineering Division HQ 2011 to 2014
- Attached to DID Federal Territory Kuala Lumpur as Deputy Director 2014 to 2015
- Appointed to Director Humid Tropic Center Kuala Lumpur 2015 to 2016
- Appointed to Deputy Director General Expert Service DID 2016
- Appointed to Deputy Director General Expert Service DID 2016 to 2017
- Appointed to Director General DID 2017 to 2019
- Attached to NAHRIM as Director General 2019 onwards

Summary of achievements

Started as design engineer at IADP Batu Pahat and was sent for one-month training abroad in the field of water management at Louisiana State University, USA in 1995. Works involved were mainly drainage scheme design and supervision of Southern Muar Agricultural Drainage Scheme (Block 14). Among scopes covered were rivers, drains, bridges, culverts, drainage control structures and coastal bunds.

Undergo Master and PhD study in Japan from 1996 and completed the Doctoral course in river engineering in 2002 in the field of sediment transport. Upon return to Malaysia engaged with works on Sungai Pinang Rehabilitation Works under design and build package before promoted to senior engineer to spearhead the Urban Drainage Unit (MSMA). In 2004 involved with Singapore Land Reclamation Issues and despatched to NUS, Singapore to supervise physical modeling works on coastal erosion issues.

Among other major achievements were the establishment of nationwide Erosion and Sediment Control Plans requirement; endorsed at Local Government National Council (MNKT) 2006, OPS Lumpur Program, 2nd Edition of MSMA, Urban Drainage Studies for major township, Rainwater Harvesting Handbook, River Crossing Guidelines and various water quality programs for urban runoff. In 2009 joined the PEMANDU “Property Development Lab” to establish competitive ways on technical compliances by project proponents.

In 2011 was given the task to work with PEMANDU on the River of Life Program focusing on flood, detention ponds, sullage water and floating rubbish issues; then spearhead the RoL secretariat for River Cleaning Taskforce comprising 26 agencies. In 2015 onwards serve as Director Humid Tropic Centre to coordinate activities and programs in Hydrology and Water Resources for Asia Pacific under the auspicious of UNESCO before appointed to Deputy Director General II and Deputy Director General I in 2016. In December 2017 appointed to Director General of DID before serving NAHRIM from Mac 2019 till now. During this these terms appointed to several Board Members include Board of Engineers and LUAS. Internationally appointed as Chairman of Asean Senior Government Officer Working Group on Integrated Water Resources Management (Dec 2017 – Mac 2019), Vice Chairman for Network Asian River Basin Organisation (2017 onwards), Panel for various international Forums and Committee.

Professional Membership

1. Professional Engineer (MIEM)
2. Certified Professional in Erosion Control (CPESC)



Ir. Mohd Zaki bin Mat Amin
Deputy Director General

EDUCATION

M.Sc	National University of Ireland Galway Hydrology Engineering	2000
B.Eng.	Universiti Teknologi Malaysia Hydrology Engineering	1988

HONORS AND AWARDS

Title of Award		
•	Pingat Ahli Mangku Negara (A.M.N.)	2016
•	Global ICT Excellence Awards - Winner Award of Sustainable Growth Award, WITSA Hyderabad	2018
•	Asia Geospatial Excellence Awards – Winner for Climate Change Category	2017
•	MSC Malaysia APICTA Award – Best of Sustainability and Environment Technology National	2017
•	APICTA 2017 - Merit Award for Best Sustainable & Environment Technology	2017
•	Award Certificate for the MAMPU BDA-DGION project	2016
•	MSC Malaysia APICTA Award – Best of Sustainability and Environment Technology National	2014

EXPERIENCE

National Hydraulic Research Institute of Malaysia (NAHRIM)	2019 to present
Deputy Director General	
• Expertise in a wide range of hydrology issues including urban, rural and forest hydrology which consist of hydrology analysis, design and synthesis, rainfall runoff modelling, watershed modelling, water resources assessment, flood forecasting and warning system, dam hydrologic modelling, climate change projection and modelling, climate change impact assessment, climate change vulnerability assessment and adaptation to climate change	

EXPERIENCE

National Hydraulic Research Institute of Malaysia (NAHRIM)

2010 to 2019

Director Water Resources and Climate Change Research Centre

- Project manager of the Technical Working Group (TWG) for Climate Change Vulnerability & Adaptation (CC V&A) for Third National Communication (TNC) and Biennial Update Report (BUR) for the United Nations Framework Convention on Climate Change (UNFCCC) under the United Nations Development Programme (UNDP) / Global Environment Facility (GEF)
- Lead the TWG CC V&A with 7 main sectors as sub working groups to carry out V&A assessment and risk management for identification of adaptation measures, key uncertainties and issues due to climate change impacts
- Author to a few hydrology and water resources engineering related procedure and guideline such as DID Hydrological Procedure No.1 and 26 – Estimation of Design Rainstorm for Peninsular Malaysia, and Sabah and Sarawak respectively, and NAHRIM Technical Guide No.1 – Estimation of Future Design Rainstorm for Peninsular Malaysia
- Collaboration research for Flagship DSTIN Project on Sustainable Water Consumption through Water Foot Printing and Water Risk Management; Master Plan on Alternative Water Resources and Conjunctive Water Supply for Kuala Lumpur
- Big Data Analytics (BDA) for the NAHRIM Hydro-Climate Data Analysis Accelerator (HyDAA) that consist of Visualization and Analytics for Hydro Climate (Temperature, Rainfall, Stream Flow, Runoff, Storm Centre), Climate Change Factor (Flood & Drought) and Water Stress (Water Yield, Water Demand, Water Provision, Water Stress Index and Water Surplus Deficit)
- Involved in vulnerability and economics assessment for potential inland flood inundation and drought under climate change condition.

National Hydraulic Research Institute of Malaysia (NAHRIM)

2009 to 2010

Senior Principal Research Officer at Water Resources and Climate Change Research Centre

Department of Irrigation and Drainage (DID) Malaysia

2007 to 2009

National Hydraulic Research Institute of Malaysia (NAHRIM)

2003 to 2006

Senior Research Officer at Water Resources Division

Board of Engineers Malaysia

2002

Registered as a Professional Engineer

Department of Irrigation and Drainage (DID) Malaysia

1993 to 2002

Civil Engineer at Hydrology Branch



Ir. Mohd Radzi bin Abd. Hamid
Director of Coastal and Oceanography Research Centre

EDUCATION

B.Sc	University of Hartford, USA Civil Engineering	1986
Dip	MARA Institute of Technology, Malaysia Civil Engineering	1983

HONORS AND AWARDS

Title of Award

• British Invention Show, BIS 2016 (Double Gold Award)	2016
• International Invention and Innovation Competition in Canada, iCAN2017 (Gold Medal)	2017

EXPERIENCE

National Hydraulic Research Institute of Malaysia (NAHRIM)	2010 to present	Director of Coastal and Oceanography Research Centre
• Planning and execution of research and development program in the fields related to coastal engineering, environment research and consultancy works for both the public and private sectors including numerical and physical modelling (hydrodynamic, wave and sediment transport), coordinate collaborative research and development program with higher learning institutes, government agencies and private sectors, develop and carry out capacity building program • Responsible for the study on a sea level rise due to climate change impact and continues study on the impact of sea level rise at selected coastal town/ areas such as Sandakan, Batu Pahat, Kuala Kedah and Langkawi Island. The study also identified the vulnerable areas and estimated the adaptation costs measures needed		

EXPERIENCE

- Committee member in the Malaysian Construction Excellence Awards (MCIEA) - G 7 panel organized by CIDB since 2006 until 2017
- Invited speakers in various national and international symposiums in related fields and an active product inventor
- Lead the innovative coastal protection structure and won several international awards

Public Works Department (JKR)

2005 to 2010

Senior Executive Engineer

- Responsible on development of manual and guidelines for asset management for government and supervise on universities building works

Kementerian Kebudayaan, Kesenian dan Warisan

Technical Director

- Responsible for all ministry technical and engineering works including plan, design, tender and supervision of construction

Jabatan Perdana Menteri (JPM)

1998 to 2004

Assistant Director at Technical Section Economic Planning Unit

Public Works Department (JKR)

1990 to 1998

Port Unit, Structural and Specialised Engineering Section

- Responsible regarding on tender, supervise and monitor coastal engineering projects such as jetties, revetment, and pontoon as well as quay wall

Public Works Department (JKR)

1988 to 1990

Executive Engineer at Computer Centre

- Support JKR staff in software development & hardware maintenance

Board of Engineers Malaysia

Registered as a Professional Engineer



Dato' Ir. Dr. Nasehir Khan bin E.M Yahaya
Director of Water Quality Laboratory

EDUCATION

Ph.D	USM collaboration University of Stuttgart, Germany Water Resources & Environmental Engineering	2011
M.Sc	Universiti Sains Malaysia River Engineering	2000
B.Sc	Universiti Pertanian Malaysia Civil Engineering	1989

HONORS AND AWARDS

Title of Award

• Darjah Indera Mahkota Pahang (D.I.M.P.), Sultan of Pahang	2017
• Ahli Mangku Negara (A.M.N.), Kuala Lumpur	2015
• Pingat Kelakuan Terpuji (P.K.T.), Pulau Pinang	2010
• Pingat Jasa Kebaktian (P.J.K.), Pulau Pinang	2004

EXPERIENCE

National Hydraulic Research Institute of Malaysia (NAHRIM) Director of Water Quality Laboratory	2010 to present
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National Hydraulic Research Institute of Malaysia (NAHRIM) Director of River Basin Research Center	2013 to 2019
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- Research interest are Water and Wastewater Engineering, Integrated Water Resources Management (IWRM), Eco and Environmental-Hydraulics, Innovative Urban Drainage Management, Data Mining in Hydraulics and Hydrology, Flooding Management and Hydro informatics, Floodplain, River and Estuarine Rehabilitation, Flood Forecasting and Flood Risk Management/ Mitigation and Water Quality Treatment

EXPERIENCE

- Board of Assessors for the IAHR Scientific Papers, 2016 – 2017
- Board of Assessors for the Board of Engineers Malaysia Technical Paper Work, 2016- 2017
- The Innovation Chief Jury at the Malaysian Technology Expo, Ministry of Higher Education, 2015 - 2017
- Committee Member of the International Low Impact Development Conference Beijing, China, 2015 – 2016
- Chairman of the Technical Committee, Academy of Sciences Malaysia, 2014 – 2017.
- The Innovation Chief Jury at PENCIPTA, Ministry of Science, Technology and Innovation, 2014 - 2016
- Chief Assessor of the JPA Interview Board for PhD dan MSc. Students, Ministry of Higher Education, 2014 - 2016
- Chief Editor for the NAHRIM Journal, 2013 -2017
- Committee Member of the “Cameron Highlands Dreams” Project, Ministry of Natural Resources and Environment, 2013 – 2017
- Committee Member of the “Pemulihan Tasik Chini dan Lembangan Sungai Chini”, Ministry of Natural Resources and Environment, 2013 -2017
- Representative of Malaysia at the ‘International Association for Hydro Environment Engineering & Research’

Department of Irrigation and Drainage (DID) Malaysia 2003 to 2004
Division of Hydrology and Natural Resources

Department of Irrigation and Drainage (DID) Pulau Pinang 2000 to 2004

Department of Irrigation and Drainage (DID) Headquarters 1999 to 2000
River Engineering Division

Department of Irrigation and Drainage (DID) Wilayah Persekutuan 1992 to 1997
Civil Engineer at Division of Design

Membership of National Bodies

1. Researcher Professor of Seoul University, South Korea
2. Professor Adjunct Universiti Malaysia Pahang
3. Professor Adjunct Universiti Teknologi Mara
4. Vice President of Persatuan Pencinta Sungai Pulau Pinang
5. The Secretary of Persatuan Penyelidikan Air Malaysia - Korea
6. The Secretary of Persatuan Empangan Besar Malaysia (myCOLD) Committee Member of Persatuan Penuaian Air Hujan Malaysia
7. Member of the Board of Engineers Malaysia
8. Member of the Institution of Engineers Malaysia
9. Member of Malaysia Water Association



Ir. Dr. Safari bin Hj. Mat Desa
Director of River Basin Research Centre

EDUCATION

Ph.D	Universiti Kebangsaan Malaysia Civil And Structural Engineering - Physical Modelling	2017
M.Sc	Universiti Putra Malaysia Engineering Management	2011
B.Sc	Universiti Teknologi Malaysia Civil Engineering	2002

EXPERIENCE

National Hydraulic Research Institute of Malaysia (NAHRIM) Director of River Basin Research Centre	2019 to present
National Hydraulic Research Institute of Malaysia (NAHRIM) Director of Hydraulic and Instrumentation Laboratory Published research journals about Wave Interaction and Attenuation study	2009 to 2019
Department of Fisheries Malaysia Resident Engineer to department house project, aquaculture engineering design such as aquaculture ponds, hatchery building and aquaculture survey also design and construction of fisheries jetty	2002 to 2009
Majlis Perbandaran Pulau Pinang Traffic engineering specialised and maintenance as well as managing landfill dump-site towards sanitary landfill compliance	1996 to 2002
L&M Specialist Engineering Sdn. Bhd Forensic and structural integrity test and structural remedial work and rehabilitation	



Ts. Hj. Zubaidi bin Johar
Director of Water Quality and Environment Research Centre

EDUCATION

M.Sc	Universiti Putra Malaysia Environment/ Hydrology	2005
B.Sc	Universiti Sains Malaysia Mathematics	1993

HONORS AND AWARDS

Title of Award

• Darjah Ahli Mahkota Perlis (A.M.P)	2017
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EXPERIENCE

National Hydraulic Research Institute of Malaysia (NAHRIM)

Director of Water Quality and Environment Research Centre	2019 to present
River Basin Research Centre	2016 to 2019
Water Resource and Climate Change Research Centre	2009 to 2015
• Undergoes a number of long-term professional training courses on environment technology and river basin and water resources management. Currently he specializes in inland water quality management with an emphasis on climate change and environmental conservation technology	
• Conducted numerous researches pertinent to water resources, climate change adaptation, river basin hydrology and inland water quality	
• Written several research papers, articles and contributes as co-author in few books.	
• Attended training course on the climate change negotiation at the ADB Institute Tokyo Japan	
• Contributing the collective voice of Malaysia in discussions at the UNFCCC Conference of the Parties (COP)	

EXPERIENCE

Malaysian Meteorological Department (MetMalaysia)

Environmental Studies Division, ICT Division and Training Division	1994 to 2009
Meteorologist at weather forecast centre	
• One year training at World Meteorological Organization (WMO) Regional Training Centre India	

Membership of National Bodies

1. Malaysia Board of Technologists (MBOT) since 2019
Specialized in atmospheric science and environment technology



Ir. Azman bin Mat Jusoh

Director of Water Resources and Climate Change Research Centre

EDUCATION

M.Sc	Institute for Water Education, Netherland Water Resources Management	2007
B.Sc	University Teknologi MARA Civil Engineering	1996
Dip	Universiti Teknologi Malaysia Civil Engineering	1988

HONORS AND AWARDS

Title of Award

- | | |
|--|------|
| • Bintang Ahli Mangku Negara (A.M.N.) – HRH Agong XV | 2017 |
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EXPERIENCE

National Hydraulic Research Institute of Malaysia (NAHRIM)

Director of Water Resources & Climate Change Research Centre

2019 to present

Senior Research Officer

2009 to 2019

- Has 20 years of experience in the field of water management and water engineering
- Extensive work experience in flood mitigation, erosion and sediment control analysis and design, sustainable urban drainage system, integrated water resources management and integrated river basin management
- Knowledgeable on innovation and commercialization of new products related to water resources
- Successfully invented and commercialised many new products and achieved many awards in the exhibition and competition of new products at national and international level
- Certified MS ISO 14001:2014 Lead Auditor by SIRIM
- Registered as a Professional Engineer with the Board of Engineers, Malaysia in 2018 and a Cooperate Member of Institute of Engineers, Malaysia (IEM)
- Registered as a Professional in Erosion and Sediment Control – Awarded by Enviro Cert International, US Scientific.

EXPERIENCE

Department of Irrigation and Drainage (DID) Headquarters

Senior Assistant Director and at Urban Drainage Division

2008

River Engineering Division

2007

Department of Irrigation and Drainage (DID) Ampang Branch

Human Resources Division

2003

Department of Irrigation and Drainage (DID) Headquarters

Civil engineer at Coastal Engineering Division 2000

Technical Assisstant at Irrigation Division

1993

Membership of National Bodies

1. Corporate member of Institute of Engineers Malaysia
2. Member of Malaysia-Korea Water Research Association
3. Member of Malaysia Storm Water Organization
4. Member of Japan-Malaysia International Cooperation (JICA) Alumni Association
5. Member of Netherlands Alumni Association



Nor Aslinda binti Awang
Director of Hydraulic and Instrumentation Laboratory

EDUCATION

M.Sc	University of Waikato, New Zealand Earth Science	2010
B.Sc	University Teknologi MARA Civil Engineering	1999
Dip	Universiti Teknologi Malaysia Civil Engineering	1985

HONORS AND AWARDS

Title of Award

• Pingat Ahli Mangku Negara (A.M.N.) – HRH Agong XVI	2019
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EXPERIENCE

National Hydraulic Research Institute of Malaysia (NAHRIM)

Director of Hydraulic and Instrumentation Laboratory	2020
Director of Water Quality Laboratory	2019
Research Officer Coastal Management Research Centre	2001
• Actively attending conferences/seminars at national and international level and has more than 30 publications in journals, proceedings, technical reports, books and book chapters • Program Penanaman semula Bakau dan Lain-lain Spesies Sesuai di Pesisiran Pantai Negara (2015-2019) • Coral Triangle Initiative Programme - Climate Change Adaptation (2010 -2019) • Cadangan Pewujudan "Particularly Sensitive Sea Area" di kawasan Taman Negara Pulau Kukup sehingga Taman Negara Tanjung Piai, Johor (2015 – 2018) • Jawatankuasa Teknikal Tanah Lembap (2017 - 2019) • Jawatankuasa Kerja Laporan Pemeriksaan untuk Rancangan Struktur Negeri Terengganu 2050 (Kajian Semula) (2019) • Jawatankuasa Task Force Kajian Rancangan Fizikal Zon Pesisiran Pantai Negara ke-2 (RFZPPN ke-2) (2019) • Jawatankuasa Kerja Teknikal Penyediaan Peta Risiko Bencana JPS (2019) • Pelan Pengurusan Pesisir Pantai Kuah-Kelibang, Langkawi, Kedah (2019)	

Ministry of Health Malaysia

Technical Assisstant at Engineering Services Department	1986
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Ismail bin Hj. Tawnie
Director of Hydrogeology Research Centre

EDUCATION

M.Sc	Universiti Malaya Applied Geology	1996
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HONORS AND AWARDS

Title of Award

• Anugerah Perkhidmatan Cemerlang (APC) NAHRIM	2012
• Anugerah Perkhidmatan Cemerlang (APC) JMG Malaysia	2017

EXPERIENCE

National Hydraulic Research Institute of Malaysia (NAHRIM)

Director of Hydrogeology Research Centre	2019 to present
Covering of Director of Hydrogeology Research Centre	2018 to 2019
Covering of Director of Corporate Planning Division	2015 to 2018
Senior Researcher at Hydrogeology Research Centre	2015 to 2019
Covering of Director, Hydrogeology Research Centre	2014 to 2015
Senior Researcher	2008 to 2015
- Proposed and implemented more than 18 hydrogeological research and consultation project - Actively attending conferences/seminars at national and international level and has more than 30 publications in journals, proceedings and technical reports	

Jabatan Mineral & Geosains Negeri Sembilan/Melaka 2005 to 2008

- Planned and implemented hydrogeological investigation projects at Negeri Sembilan and Melaka
- Involved and managed 'Kajian Sumber Air Tanah Negeri Sembilan' Project for RMK-9
- Prepared a Hydrogeological Map of Negeri Sembilan and Hidrogeological Map of Melaka
- Prepared and managed hydrogeology database (HYDROdat) for Negeri Sembilan and Melaka

Jabatan Mineral & Geosains Malaysia, Sarawak, Kuching 2000 to 2005

- Planned and implemented a hydrogeological investigation projects at Sarawak
- Involved in 'Kajian Sumber Air Tanah Sarawak' Project for RMK-8
- Prepared and managed hydrogeology database (HYDROdat) for Sarawak

Jabatan Penyiasatan Kajibumi Malaysia, Sarawak, Kuching 1999 to 2000

- Planned and implemented a hidrogeolological investigation project at Sarawak
- Involved in 'Kajian Sumber Air Tanah Sarawak' Project for RMK-7

Membership of National Bodies

1. Professional Geologist, P.Geol (PG 395), Registered with Board of Geologist, Malaysia
2. Member of Institut Geologi Malaysia (IGM), Membership No: 681
3. Life Member of Persatuan Geologi Malaysia (GSM)
4. Member of International Association of Hydrogeologist (IAH)



DATO' IR. DR. HJ. MD. NASIR BIN MD. NOH

Ketua Pengarah

Ijazah Sarjana Muda Kejuruteraan Awam (Louisiana State University, 1985)
Ijazah Sarjana Kejuruteraan Sungai (Tottori University, 1999)
Ijazah Doktor Falsafah Kejuruteraan Sungai (Tottori University, 2002)

Bidang kepakaran: Sediment Transport

Tesis PhD: Sediment Flushing for Steep Slope Reservoir

Tempoh Perkhidmatan: 31 tahun



IR. MOHD. ZAKI BIN MAT AMIN

Timbalan Ketua Pengarah

Ijazah Sarjana Muda Kejuruteraan Awam (UTM, 1988)
Ijazah Sarjana Sains Kejuruteraan Hidrologi (National University of Ireland Galway, 2000)

Bidang kepakaran: Hydrology design, analysis and synthesis, flood forecasting and warning system (conventional & AI-machine learning), water resources assessment, watershed and land surface hydrology modelling, climate change modelling, climate change impact, vulnerability and adaptation assessment, data augmentation and big data analytics (BDA), climate change adaptation –disaster risk reduction framework (CCA-DRR), rainwater harvesting system

Tempoh Perkhidmatan: 24 tahun



IR. HJ. MOHD. RADZI BIN ABD. HAMID

Pengarah Pusat Kajian Pantai dan Oseanografi (PKPO)

Diploma Kejuruteraan Awam (ITM, 1983)
Ijazah Sarjana Muda Kejuruteraan Awam (University of Hartford, 1986)

Bidang kepakaran: Coastal Engineering

Tempoh Perkhidmatan: 32 tahun



DATO' IR. DR. NASEHIR KHAN BIN E.M. YAHAYA

Pengarah Makmal Kualiti Air (MKA)

Ijazah Sarjana Muda Kejuruteraan Awam (UPM, 1989)
Ijazah Sarjana Sains (Kejuruteraan Sungai dan Sumber Air) (USM, 2000),
Ijazah Doktor Kejuruteraan Awam (Kajian Kualiti Air dan Udara) (USM, 2011)

Bidang kepakaran: Kejuruteraan Sumber Air dan Persekitaran dan Kejuruteraan Sungai

Tesis PhD: Production of Rice Husk Activated Carbon for Improving Urban Dry Weather Flow Quality at Sungai Pinang Basin

Tempoh Perkhidmatan: 28 tahun



IR. DR. SAFARI BIN HJ. MAT DESA

Pengarah Pusat Kajian Lembangan Sungai (PKLS)

Ijazah Sarjana Muda Kejuruteraan Awam (UTM, 2002)
Ijazah Sarjana Sains Kejuruteraan dan Pengurusan (UPM, 2011)
Ijazah Doktor Falsafah Kejuruteraan Awam & Struktur (UKM, 2017)

Bidang kepakaran: Pemodelan Fizikal Hidraulik Kelautan

Tesis PhD: Pemodelan Fizikal Penentuan Lesapan Tenaga Ombak Struktur WABCORE

Tempoh Perkhidmatan: 25 tahun



TS. HJ. ZUBAIDI BIN JOHAR

Pengarah Pusat Kajian Kualiti Air dan Alam Sekitar (PKKAAS)

Ijazah Sarjana Muda (Matematik) (USM, 1993)
Ijazah Sarjana Sains (Alam Sekitar) (UPM, 2005)

Bidang kepakaran: Hydrometeorology, Inland Water Quality Management

Tempoh Perkhidmatan: 26 tahun



IR. AZMAN BIN MAT JUSOH

Pengarah Pusat Kajian Sumber Air dan Perubahan Iklim (PKSA)

Diploma Kejuruteraan Awam (UTM, 1988)
Ijazah Sarjana Muda Kejuruteraan Awam (UiTM, 1996)
Ijazah Sarjana Pengurusan Sumber Air (Institute for Water Education, Netherland, 2007)

Bidang kepakaran: Erosion and Sediment Control, Water Resources Management, Climate Change and Adaptation

Tempoh Perkhidmatan: 27 tahun



NOR ASLINDA BINTI AWANG

Pengarah Makmal Hidraulik dan Instrumentasi (MHI)

Diploma Kejuruteraan Awam (UTM, 1985)

Ijazah Sarjana Muda Kejuruteraan Awam (UiTM, 1999)

Ijazah Sarjana Sains (Sains Bumi) (University of Waikato, 2010)

Bidang kepakaran: Pemodelan Hidrodinamik, Hidrodinamik Bakau,
Kenaikan Aras Laut

Tempoh Perkhidmatan: 34 tahun



ISMAIL BIN HJ. TAWNIE

Pengarah Pusat Kajian Hidrogeologi (PKH)

Ijazah Sarjana Muda Sains (Geologi Gunaan) (UM, 1996)

Bidang kepakaran: Groundwater Resource Management, Groundwater
– Surface Water Interaction, Hydraulic Properties of
Aquifer

Tempoh Perkhidmatan: 20 tahun



IR. DR. LEE HIN LEE

Pegawai Penyelidik Q54

Ijazah Sarjana Muda Kejuruteraan Awam (Hanyang University Seoul
Korea, 1989)

Ijazah Sarjana Sains (Kejuruteraan Awam dan Struktur) (UKM, 2011)

Ijazah Doktor Falsafah Sains Sekitaran (UKM, 2017)

Bidang kepakaran: Coastal Morphology, Salt Water Intrusion, Wastewater
Treatment Using Constructed Wetlands

Tesis PhD: Modeling and Assessment of the Longitudinal Salinity
Movement in the Terengganu River Estuary

Tempoh Perkhidmatan: 29 tahun



GS. HJ. KHAIRUL ANAM BIN MUSA @ MAHMUD

Pegawai Penyelidik, Q54

Ijazah Sarjana Muda Sains Gunaan (Geofizik) (USM, 1994)

Ijazah Sarjana Sains (Geologi) (UKM, 2001)

Bidang kepakaran: Groundwater, Rainwater, Climate Change

Tempoh Perkhidmatan: 26 tahun



IR. LT. KOL. (B) ICAHRI BIN HJ. CHATTA

Pegawai Penyelidik Q54

Ijazah Sarjana Muda Kejuruteraan Mekanikal (UTM, 2000)

Bidang kepakaran: Hydro Mechanical & Hydro Electrical

Tempoh Perkhidmatan: 19 tahun



SAIFUL BAHRI BIN HAMZAH

Pegawai Penyelidik Q52

Ijazah Sarjana Muda Kejuruteraan Awam (UM, 1998)

Ijazah Sarjana Sains Alam Sekitar (UPM, 2009)

Bidang kepakaran: Hydraulic Physical Modelling dan Marine Technology

Tempoh Perkhidmatan: 21 tahun



DR. SURIYANI BINTI AWANG @ ABDULLAH

Pegawai Penyelidik Q52

Ijazah Sarjana Muda Sains Alam Sekitar (UKM, 1998)

Ijazah Doktor Falsafah Sains Persekitaran (University of East Anglia, 2015)

Bidang kepakaran: Tidal River/estuary Water Quality dan River Water Quality Modelling

Tesis PhD: A Water Quality Study of the Selangor River Malaysia

Tempoh Perkhidmatan: 21 tahun



NOOR HISHAM BIN ABD. GHANI

Pegawai Penyelidik Q52

Ijazah Sarjana Muda Kejuruteraan Awam (USM, 1999)

Ijazah Sarjana Sains Kejuruteraan Sumber Air (UiTM, 2017)

Bidang kepakaran: Hidro-iklim, Kejuruteraan Sumber Air dan Hidrologi, Adaptasi Perubahan iklim (sektor air)

Tempoh Perkhidmatan: 18 tahun



LIEW YUK SAN

Pegawai Penyelidik Q52

Ijazah Sarjana Muda Kejuruteraan Awam (UTM, 2003)

Ijazah Sarjana Sains Pengurusan Sungai dan Saliran Bandar (USM, 2010)

Bidang kepakaran: River and Urban Drainage Engineering, Hydrology and Hydraulic

Tempoh Perkhidmatan: 16 tahun



DR. BASHIRAH BINTI MOHD FAZLI

Pegawai Penyelidik Q52

Diploma Kejuruteraan Kimia (Kimia Industri) (UiTM, 2000)

Ijazah Sarjana Muda Sains (Kimia Gunaan) (UiTM, 2002)

Ijazah Sarjana Sains (Sains Bumi) (University of Waikato, 2010)

Ijazah Doktor Falsafah (Kajian Alam Sekitar) (UM, 2019)

Bidang kepakaran: Water Quality Forensic, Pollution Control, Ecosystem Impact

Tesis PhD: Development of Similarity Based Spatial Modeling for Integrated Recreational Lake Water Quality Management

Tempoh Perkhidmatan: 16 tahun



SYAZRIN SYIMA BINTI SHARIFUDDIN

Pegawai Penyelidik Q52

Diploma Mikrobiologi (UiTM, 1999)

Ijazah Sarjana Muda Kimia Gunaan (UiTM, 2003)

Ijazah Sarjana Sains (Sains Alam Sekitar) (UPM, 2012)

Bidang kepakaran: Water Quality Analysis, Water Treatment

Tempoh Perkhidmatan: 15 tahun



DR. ZATI BINTI SHARIP

Pegawai Penyelidik Q52

Ijazah Sarjana Muda Kejuruteraan Kimia (UTM, 1996)

Ijazah Sarjana Sains Pengurusan Loji Proses (UTM, 2003)

Ijazah Doktor Falsafah Kejuruteraan Alam Sekitar (University of Western Australia, 2011)

Bidang kepakaran: Lake Ecosystem Health, Lake Hydro-ecological Dynamic and Processes, Assessment of Eutrophication and Management of Lentic Water Bodies

Tesis PhD: Interactions among freshwater macrophytes and physical-chemical-biological processes in Lake Chini, Malaysia

Tempoh Perkhidmatan: 15 tahun



MOHD KHAIRUL NIZAR BIN SHAMSUDDIN

Pegawai Penyelidik Q48

Ijazah Sarjana Muda Sains (Geologi Gunaan) (UM, 2003)
Ijazah Sarjana Sains Hidrologi dan Hidrogeologi (UPM, 2014)
Ijazah Doktor Falsafah (Hidrologi Alam Sekitar dan Hidrogeologi) (UPM, 2019)

Bidang kepakaran: Geology, Hydrogeology, Groundwater modelling

Tesis PhD: Riverbank Filtration as a Conjunctive Use Between
Surfacewater and groundwater for water security



NOOR AZME BIN OMAR

Pegawai Penyelidik Q48

Diploma Kejuruteraan Pertanian (UPM, 1995)
Ijazah Sarjana Muda Kejuruteraan Pertanian (Pengeluaran dan
Pembangunan) (UPM, 2000)

Bidang kepakaran: Hidro Mekanikal (sistem, produk dan aplikasi
lapangan)

Tempoh Perkhidmatan: 16 tahun



NORBAYA BINTI HASHIM

Pegawai Penyelidik Q48

Ijazah Sarjana Muda Sains (Kimia) (UKM, 2004)
Ijazah Sarjana Sains (Alam Sekitar dan Pembangunan) (UKM, 2013)

Bidang kepakaran: Kimia Analisis (trace organic compounds/ handling
high-end instrument/ SPE/ LCMS/MS), Water Quality
(analysis, monitoring, modelling), Lab accreditation
(ISO 17025:2005)

Tempoh Perkhidmatan: 15 tahun



AMRI BIN MD. SHAH

Pegawai Penyelidik Q48

Ijazah Sarjana Muda Sains Samudera, (KUSTEM, 2005)
Ijazah Sarjana Sains Marin (UKM, 2013)

Bidang kepakaran: Sea Level Rise, Coastal Dynamic, Coastal
Vulnerability Index

Tempoh Perkhidmatan: 13 tahun



ANG SHIN YING

Pegawai Penyelidik Q48

Ijazah Sarjana Muda (Bioteknologi Sumber) (UNIMAS, 2002)

Ijazah Sarjana (Bioteknologi) (UNIMAS, 2006)

Bidang kepakaran: Waste Utilisation in Bioadsorption and Biofiltration, Phytoremediation and Water Quality, Treatment Reed Beds and Water Quality

Tempoh Perkhidmatan: 13 tahun



MOHAMMAD FIKRY BIN ABDULLAH

Pegawai Penyelidik Q48

Ijazah Sarjana Muda Teknologi Maklumat (UNITEN, 2005)

Ijazah Sarjana Teknologi Maklumat (UKM, 2014)

Bidang kepakaran: Data Analysis & Management, IT Water & Environment Research, Big Data Analytics & Emerging Technology

Tempoh Perkhidmatan: 13 tahun



NURLAILAH BINTI ABDILLAH

Pegawai Penyelidik Q48

Ijazah Sarjana Muda Bioindustri, (UPM, 2005)

Bidang kepakaran: Pengurusan kualiti air sungai, Permodelan kualiti air sungai, Pendekatan Total Maximum Daily Load (TMDL)/ Jumlah Maksima Beban Harian

Tempoh Perkhidmatan: 13 tahun



MOHD KAMARUL HUDA BIN SAMION

Pegawai Penyelidik Q48

Ijazah Sarjana Muda Kejuruteraan Awam (UTM, 2004)

Ijazah Sarjana Kejuruteraan (Awam – Hidraulik dan Hidrologi) (UTM, 2007)

Bidang kepakaran: Hydraulic Physical Modelling

Tempoh Perkhidmatan: 13 tahun



ANUAR BIN SEFFIE

Pegawai Penyelidik Q48

Ijazah Sarjana Muda Sains (Geologi) (UKM, 2003)

Master Sains (Hidrologi dan Hidrogeologi Alam Sekitar) (UPM, 2018)

Bidang kepakaran: Hidrogeologi, Geokimia and Engineering Geology

Tempoh Perkhidmatan: 12 tahun



NURUL HUDA BINTI MD. ADNAN

Pegawai Penyelidik Q48

Ijazah Sarjana Muda Kejuruteraan Awam (Alam Sekitar) (UTM, 2006)

Ijazah Sarjana Kejuruteraan Awam Pengurusan Alam Sekitar (UTM, 2009)

Bidang kepakaran: Climate Change Impacts, Vulnerability & Adaptation Assessment, Water-related Disaster Risk Reduction/Management, Water Resources Management

Tempoh Perkhidmatan: 9 tahun



AZRUL NORMI BIN IDRIS

Pegawai Penyelidik Q48

Ijazah Sarjana Muda Sains (Geologi Gunaan) (UM, 2000)

Bidang kepakaran: Saltwater Intrusion (Modeling), Groundwater Modeling, Engineering Geology and Deep Foundation (Geotechnical)

Tempoh Perkhidmatan: 12 tahun



GOH YEE CAI

Pegawai Penyelidik Q48

Ijazah Sarjana Muda Kejuruteraan Awam (Alam Sekitar) (UTM, 2006)

Ijazah Sarjana Kejuruteraan (Hidrologi dan Sumber Air) (UTM, 2011)

Bidang kepakaran: Hydrologic modelling, Water resources management, GIS

Tempoh Perkhidmatan: 9 tahun



MOHD FADHIL BIN KASIM

Pegawai Penyelidik Q48

Ijazah Sarjana Muda Sains Samudera (UMT, 2007)

Bidang kepakaran: Lake Water Quality, Environmental Science

Tempoh Perkhidmatan: 12 tahun



MUHAMMAD AZROIE BIN MOHAMED YUSOFF

Pegawai Penyelidik Q48

Ijazah Sarjana Muda Sains (Mikrobiologi) (UM, 2009)

Ijazah Sarjana Sains Mikrobiologi (UKM, 2015)

Bidang kepakaran: Microbiology, Bioflocculant, Essential Oil (Plants)
Extraction

Tempoh Perkhidmatan: 12 tahun



DUNSTAN BIN ANTHONY

Pegawai Penyelidik Q48

Ijazah Sarjana Muda Sains Samudera (UMT, 2007)

Ijazah Sarjana (Sains Marin) (UMS, 2017)

Bidang kepakaran: Marine Technology and Instrumentation, Numerical
Modelling, Geographic Information System (GIS)

Tempoh Perkhidmatan: 12 tahun



MOHD SYAZWAN FAISAL BIN MOHD

Pegawai Penyelidik Q48

Ijazah Sarjana Muda Sains Fizik (UKM, 2007)

Ijazah Sarjana Sains (Sains Laut) (UKM, 2016)

Bidang kepakaran: Climate Change Modeling, Hydrological Modeling,
Hydro-climate

Tempoh Perkhidmatan: 12 tahun



MOHD. AFZAIHELMI BIN MOHD ARIFF

Pegawai Penyelidik Q48

Diploma Kejuruteraan Awam (UiTM, 2004)
Ijazah Sarjana Muda Kejuruteraan Awam, (UiTM, 2006)
Sarjana Kejuruteraan (Awam) (UKM, 2018)

Bidang kepakaran: Hidrology & Hidrodinamik (River & Lake), Numerical Modelling (River & Lake), GIS (Database development/ Processing/analysis)

Tempoh Perkhidmatan: 12 tahun



IR. MARINI BINTI MOHAMAD IDERIS

Pegawai Penyelidik Q47

Ijazah Sarjana Muda Kejuruteraan Awam dan Sekitaran (UKM, 2000)

Bidang kepakaran: Water Resources Management, Hydrology, Alternative Water Resources / Rainwater harvesting

Tempoh Perkhidmatan: 4 tahun



DR. MOHD. AMINNUR RASHID BIN MOHD. AMIRUDDIN ARUMUGAM

Pegawai Penyelidik Q47

Ijazah Sarjana Muda Kejuruteraan Awam (USM, 2008)
Ijazah Sarjana Pengurusan Sungai Lestari (USM, 2009)
Ijazah Doktor Falsafah Kejuruteraan Awam (Hidraulik & Hidrologi) (USM, 2013)

Bidang kepakaran: Stormwater management

Tesis PhD: Modelling the Effects of Filtration Within Hexagonal Modular Permeable Pavements using Flow-3D

Tempoh Perkhidmatan: 4 tahun



DR. NOOR HAZA FAZLIN BINTI HASHIM

Pegawai Penyelidik Q47

Ijazah Sarjana Muda (K) Sains (Microbiologi) (UKM, 2005)

Ijazah Sarjana Sains (Molekular Biologi) (UKM, 2009)

Ijazah Doktor Falsafah Mikrobiologi (UKM, 2014)

Bidang kepakaran: Antimicrobial Resistance in Water Bodies, Microbial Enzyme Bioremediation, Environmental Microbiology

Tesis PhD: Functional analysis of Antifreeze Proteins from *Glaciozyma antarctica*

Tempoh Perkhidmatan: 1 tahun



NUR ELYASABATH BINTI MOHD GHAZALI

Pegawai Penyelidik Q44

Ijazah Sarjana Muda Kejuruteraan Awam (UiTM, 2000)

Ijazah Sarjana Kejuruteraan Air (UPM, 2013)

Bidang kepakaran: Rainwater Harvesting, Water Resource Management

Tempoh Perkhidmatan: 13 tahun



ANIZAWATI BINTI AHMAD

Pegawai Penyelidik Q44

Diploma Kejuruteraan Awam (UiTM, 2006)

Ijazah Sarjana Muda Kejuruteraan Awam (UiTM, 2008)

Ijazah Sarjana Kejuruteraan Awam, (UKM, 2016)

Bidang kepakaran: Hydrodynamic in Mangrove Area, Sea Level Rise, Morphology and Coastal Processes

Tempoh Perkhidmatan: 11 tahun



WAN AHMAD HAFIZ BIN WAN MOHAMED AZHARY

Pegawai Penyelidik Q44

Ijazah Sarjana Muda Kejuruteraan Awam (UTM, 2009)

Bidang kepakaran: Hydraulic Study, Coastal Morphology, Sea Level Rise

Tempoh Perkhidmatan: 10 tahun



YANNIE ANAK BENSON

Pegawai Penyelidik Q44

Ijazah Sarjana Muda Kejuruteraan Awam, (UTM, 2005)
Ijazah Sarjana Kejuruteraan (Awam – Pengurusan Alam Sekitar) (UTM, 2006)

Bidang kepakaran: Hydraulic Study, Coastal Morphology, Sea Level Rise, overtopping & Numerical Modelling (MIKE 21)

Tempoh Perkhidmatan: 10 tahun



MUHAMMAD RIZAL BIN RAZALI

Pegawai Penyelidik Q43

Diploma Kejuruteraan Awam (UTM, 2000)
Ijazah Sarjana Muda Kejuruteraan Awam (UTM, 2010)
Ijazah Sarjana Kejuruteraan Air (UPM, 2013)

Bidang kepakaran: Strategic Planning Management, Rainwater Harvesting Technology, Seepage Behaviour in Dam Structure

Tempoh Perkhidmatan: 16 tahun



NUR AIZA BINTI MOHAMAD

Pegawai Penyelidik Q43

Diploma kejuruteraan Awam, (UTM, 2006)
Ijazah Sarjana Muda Kejuruteraan Awam (UTM, 2009)
Ijazah Sarjana Sains Kejuruteraan Awam (Sumber Air) (UiTM, 2014)

Bidang kepakaran: Rainwater Harvesting System (potable and non-potable), Water Resources, Hydraulic Modeling

Tempoh Perkhidmatan: 6 tahun



ZURINA BINTI ZAINOL

Pegawai Penyelidik Q43

Diploma Kejuruteraan Awam (UiTM, 2006)
Ijazah Sarjana Muda Kejuruteraan Awam (UiTM, 2009)
Ijazah Sarjana Kejuruteraan Awam (Sumber Air) (UiTM, 2014)

Bidang kepakaran: Hidrologi, Sumber Air, Analitik Data

Tempoh Perkhidmatan: 10 tahun



JAMILAH BINTI KARIM

Pegawai Penyelidik Q43

Ijazah Sarjana Muda Sains Gunaan (Kimia Industri) (USM, 2007)
Ijazah Sarjana Kimia (UKM, 2011)

Bidang kepakaran: Water Quality Analysis, Endocrine Disrupting Chemical, Nanocomposite)

Tempoh Perkhidmatan: 4 tahun



DR. THIAN SIAW YIN

Pegawai Penyelidik Q43

Ijazah Sarjana Muda Kejuruteraan Awam (K), (UNITEN, 2009)
Ijazah Sarjana Kejuruteraan Awam (UNITEN, 2012)
Ijazah Doktor Falsafah Kejuruteraan (UNITEN, 2019)

Bidang kepakaran: Perubahan Iklim

Tesis PhD: Response of Offshore Pile Foundations to Cyclic Axial Loading



MOHD HUZAIFAH BIN WAHAP

Pegawai Penyelidik Q41

Diploma Kejuruteraan Awam (UTM, 2004)
Ijazah Sarjana Muda Kejuruteraan Awam (UTM, 2011)

Bidang kepakaran: Groundwater Monitoring, Constructed Wetland, Water Treatment Product Innovation

Tempoh Perkhidmatan: 12 tahun



TS. AHMAD HADI BIN MOHAMED RASHIDI

Pegawai Penyelidik Q41

Ijazah Sarjana Muda Kejuruteraan Awam (UTM, 2004)
Ijazah Sarjana Kejuruteraan Awam Maritim (University of Liverpool, 2010)

Bidang kepakaran: Coastal Engineering, Hydraulic Physical Model, Product Innovation

Tempoh Perkhidmatan: 6 tahun



NOR SALMI BINTI ABDULLAH

Pegawai Penyelidik Q41

Ijazah Sarjana Muda Kimia (UM, 2005)

Ijazah Sarjana Sains (Kimia Organik Fizik) (UM, 2010)

Bidang kepakaran: Water Quality Analysis, Method Development & Validation, Water Treatment

Tempoh Perkhidmatan: 6 tahun



MOHD AZUAN BIN SAHAK

Pegawai Penyelidik Q41

Diploma Kejuruteraan Awam (UiTM, 2003)

Ijazah Sarjana Muda Kejuruteraan Awam (UiTM, 2006)

Bidang kepakaran: Pengurusan Projek

Tempoh Perkhidmatan: 6 tahun



IKMALZATUL BINTI ABDULLAH

Pegawai Penyelidik Q41

Ijazah Sarjana Muda Kejuruteraan Awam (UTM, 2009)

Ijazah Sarjana Kejuruteraan Alam Sekitar (UTM, 2013)

Bidang kepakaran: Mangrove & Sea Level Rise

Tempoh Perkhidmatan: 6 tahun



DR. KHAIRUL ANUAR BIN MOHAMAD

Pegawai Penyelidik Q41

Ijazah Sarjana Kejuruteraan Awam (UTM, 2008)

Ijazah Sarjana Kejuruteraan Awam (Hidrologi dan Sumber Air) (UTM, 2011)

Ijazah Doktor Falsafah Kejuruteraan Awam (UTM, 2019)

Bidang kepakaran: Nutrient Transport and Crop Simulation, Water Quality Model and Watershed Model

Tesis PhD: The Fate and Transport of Nutrients using Deterministic Model in Tropical watershed

Tempoh Perkhidmatan: 6 tahun



ERNIE BINTI ABD MANAN

Pegawai Penyelidik Q41

Diploma Kejuruteraan Awam (UiTM, 2007)
Ijazah Sarjana Muda Kejuruteraan Awam, (UiTM, 2009)
Ijazah Sarjana Kejuruteraan Awam (Sumber Air) (UiTM, 2012)

Bidang kepakaran: Pemodelan fizikal

Tempoh Perkhidmatan: 6 tahun



TS. DR. AHMAD FARHAN BIN HAMZAH

Pegawai Penyelidik Q41

Diploma Kejuruteraan Awam (UiTM, 2007)
Ijazah Sarjana Muda Kejuruteraan Awam (UiTM, 2010)
Ijazah Sarjana Sains Kejuruteraan Awam (Pembinaan) (UiTM, 2011)
Ijazah Doktor Falsafah Kejuruteraan Awam (UTHM, 2017)

Bidang kepakaran: Physical Modelling

Tesis PhD: Durability of Self-Compacting Concrete with Coal Bottom Ash
as Sand Replacement Material under Aggressive Environment

Tempoh Perkhidmatan: 5 tahun



NORBAIZURA A/P NGAH

Pegawai Penyelidik Q41

Diploma Kejuruteraan Awam (Politeknik Kuantan, 2007)
Ijazah Sarjana Muda Kejuruteraan Awam (UTHM, 2011)

Bidang kepakaran: Forensic Water Quality, Lake Hydrodynamic, Water
Quality Modelling

Tempoh Perkhidmatan: 5 tahun



NOOR SHAHIDA BINTI ROSLI

Pegawai Penyelidik Q41

Ijazah Sarjana Muda Sains (Biologi Marin) (UMT, 2010)
Ijazah Sarjana Sains (Sains Marin) (UMT, 2015)

Bidang kepakaran: Oseanografi Biologi, Ekologi Marin, Biologi Marin

Tempoh Perkhidmatan: Bermula Februari 2020

Penyelidikan & Pembangunan (R&D) Tahun 2015-2020

Bil.	Projek
1	Kajian Semula 'The Study of The Impact of Climate Change on Sea Level Rise in Malaysia' berdasarkan Laporan IPCC 5 AR5
2	Kajian Impak Kenaikan Aras Laut di Pelabuhan Klang, Selangor
3	Kajian Impak Peningkatan Aras Laut - Peta Inundasi Banjir di Pesisiran Pantai Daerah Batu Pahat, Johor
4	Projek Perintis Pembangunan Sistem Kawalan Hakisan dan Perluasan Pantai (NEXC)
5	Projek Piezoelektrik Rain Power Fasa I
6	Projek Inovasi NAHRIM Coastal Stabilizer and Wave Generator (NCSnWPG) Fasa I
7	Projek Pemasangan WABCORE Pulau Tinggi, Johor - Fasa 2
8.	Kajian Ekosistem dan Pemuliharaan Tasik dan Empangan Air Negara di bawah Perubahan Persekitaran Iklim
9.	Perkhidmatan Analitikal (Analytical Capability) Makmal berakreditasi MS ISO/IEC 17025
10.	Kajian Aplikasi Produk Inovasi Rawatan Air Mesra Alam 'Biofloculant' berasaskan 'Moringa Oleifera'
11.	Projek Penyelidikan 'Study on Contamination of Endocrine Disrupting Chemicals (EDCs) from Raw, Treated and Potable Water in Malaysia and Risk Assessment from Human Exposure. Case Study: Langat River Basin'
12.	Pembangunan Produk Rawatan Air – Activated Carbon
13.	Aplikasi Membrane Filter dalam Meningkatkan Kualiti Air – kerjasama dengan USIM
14.	Water Security: Embarking on a Groundwater-Surface Water Interaction in The Hyporheic Zone Approach for Resources Abstraction at Sg. Muda, Kedah and Penang
15.	Study on Effectiveness of Groundwater Recharge In Reducing Flash Flood Risk at Paya Indah Wetlands, Selangor
16.	Groundwater Pollution Assessment on Geochemistry after Landfill Closure at Ampar Tenang Landfill Site, Selangor /
17.	Kajian Lanjutan Impak Perubahan Iklim ke atas Sumber Air Malaysia
18.	Proof of Concept Pembangunan Projected Hydroclimate Data Analysis & Visualisation For Potential Drought & Flood Events di Semenanjung Malaysia (Big Data NAHRIM)
19.	Pembangunan Mobil Aplikasi NAHRIM (MyPlop & Clean The Water)
20.	Pemulihan Tasik Chini Sebagai Warisan Alam Dan Rezab Biosfera Malaysia
21.	Pelan Pengurusan & Pembangunan Tadahan Sungai Bertam, Cameron Highlands
22.	Penyelidikan Adaptasi Dan Mitigasi Banjir
23.	Projek Perintis dan Penyelidikan untuk Peningkatan Kualiti Air Dan Pemasangan NAHRIM Integrated Drainage System (NIDs) Di Tadahan Sungai Merah, Di Ringlet, Daerah Cameron Highlands, Pahang Darul Makmur
24.	Penyelidikan Keseimbangan Sistem Sungai Dan Kelestarian Persekitaran Sungai
25.	Penyelidikan 'Total Maximum Daily Load' (TMDL) bagi Sungai Batang Melaka, Sungai Tampin, dan kawasan tadahannya ke arah keseimbangan sistem sungai dan kelestarian persekitarannya

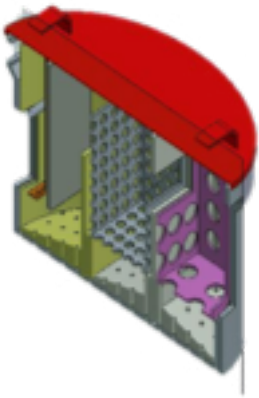
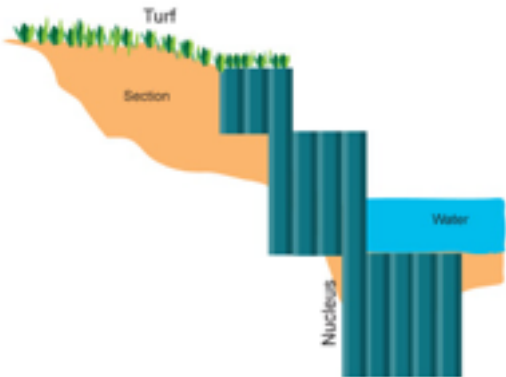
Bil.	Projek
26.	Penyelidikan Keseimbangan Sistem Sungai Dan Kelestarian Persekitaran Sungai
27.	Penyelidikan Pelan Pengurusan dan Pembangunan Lembangan Sungai Batu Ferringhi, Sungai Junjung dan Sungai Juru ke Arah Sekuriti dan Kualiti Sumber Air serta Kelestariannya
28.	Penyelidikan Pelan Pengurusan dan Pembangunan Lembangan Sungai Muar ke arah Sekuriti dan Kualiti Sumber Air serta Kelestariannya
29.	Kajian Penyediaan Garis Panduan Pelan Pengurusan Lembangan Tasik Bersepadu
30.	Kajian Inventori dan Simulasi Berkomputer bagi Tasik-Tasik Terpilih (Tasik Chini, Pahang, Empangan Sungai Terip, Negeri Sembilan dan Empangan Durian Tunggal, Melaka)
31.	A Region Specific Flood Damage Curve on Consequential Flood Inundations in a Changing Climate Environment
32.	IPCC AR5 Downscaling GCM to Regional & Watershed Scale for Sabah & Sarawak (2017-2018)
33.	Reconfiguration of Selangor-Klang-Langat River Basin Model in MIKE Hydro Basin Module
34.	Model 'Artificial Intelligence – SOM & R-NARX' Ramalan Banjir
35.	NAHRIM Watershed Environmental Hydrology Model (N-WEHY)
36.	Malaysia Climate Change Knowledge Portal (N-HyDAA)
37.	Kajian Desktop Malaysia Adaptation Index for Climate Change (MAIN) bagi Penilaian Vulnerabiliti dan Adaptasi Perubahan Iklim di Malaysia
38.	Kajian Interaksi Air Permukaan-Air Tanah: Penilaian Kualiti Air Tasik Putrajaya, Lembangan Sungai Langat
39.	Integrated Surface Water and Groundwater Physical Based Model at Sungai Muda Basin, Kedah
40.	Integrated Surface and Groundwater Physical Based Model of Linggi River Basin, Negeri Sembilan
41.	Integrated Surface Water and Groundwater Physical Based Model di Langat River Basin, Selangor
42.	Projek Pembangunan, Pemasangan dan Pengukuhan Sistem Blok Perlindungan Hakisan dan Perluasan Pantai NAHRIM (Blok NEXC)
43.	Kajian Rawatan Air di Green House, NAHRIM
44.	Kajian Peningkatan Kualiti Air Kolam Hadiqotul Ma' NAHRIM
45.	Kajian Pandanus Helicopus sebagai Green Biosorbent
46.	NAHRIM Coastal Defence & Energy Generator (N-CODE) Fasa 2
47.	Pemantauan Berkesan Wave Breaker and Coral Restorer (WABCORE) di Pulau Tioman
48.	Kajian Pembangunan Kepelbagaian Produk Inovasi Mesra Alam dalam Meningkatkan Kualiti Air dan Persekitaran: NAHRIM Activated Carbon (NAC) & NAHRIM Activated Carbon Filter Paper (NACFP)
49.	NAHRIM River Gross Pollutant Trap (NR-GPT)
50.	NAHRIM SMART DRAINAGE TRAP VER. 2 (SMADRAT V2)
51.	Produk Inovasi Perangkap Minyak dan Sisa Makanan NAHRIM (NAHRIM Oil and Food Waste Trap, NoFAT) Versi 2
52.	Kajian Pembangunan Kepelbagaian Produk Inovasi Mesra Alam dalam Meningkatkan Kualiti Air dan Persekitaran: Nanoparticles
53.	Kajian Pembangunan Kepelbagaian Produk Inovasi Mesra Alam dalam Meningkatkan Kualiti Air dan Persekitaran: Membrane Nanofiltration

Penyelidikan & Pembangunan (R&D) Tahun 2015-2020

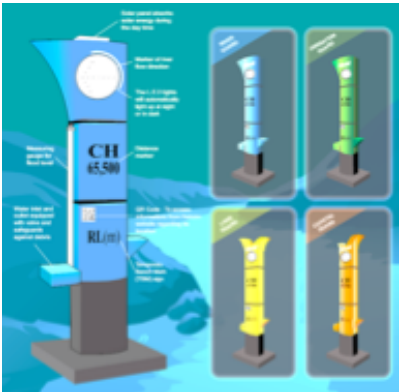
Bil.	Projek
54.	Kajian Pembangunan Kepelbagaian Produk Inovasi Mesra Alam dalam Meningkatkan Kualiti Air dan Persekitaran: NAHRIM's Biofloculant Sekam Padi
55.	Kajian Impak Perubahan Iklim terhadap Kenaikan Aras Laut di Malaysia 2017
56.	Projek Pembangunan Suhu Permukaan Lautan Menggunakan Perisian Global/Regional Integrated Model System (GRIMs)
57.	Kajian Ban yang Terlimpah disebabkan oleh Fenomena Air Pasang Besar di Pantai Barat Semenanjung Malaysia
58.	Kajian Pelan Induk Sistem Bekalan Air Konjuntif Wilayah Persekutuan Kuala Lumpur
59.	Kajian Kualiti Air Tasik dan Kolam-Kolam Takungan di sekitar Lembangan Sungai Klang
60.	Kajian Kesesuaian Pembangunan Telaga Tiub dan Keberkesanan Sistem Rawatan Air Tanah di Kampung Melai, Tasik Chini, Pekan, Pahang
61.	Kajian Biodiversity - Pelan Pengurusan Kualiti Air Tasik Bera
62.	Kajian Pembangunan Prototaip Dinding/Tembok Penahan Banjir Mudah Alih (Mobile Flood Wall Barrier)
63.	Kajian Pemulihan Dan Pemuliharaan Serta Pencegahan Banjir Dan Lain-lain Berkaitan Di Tadahan Sg Jenderam (Lembangan Sg Langat)
64.	Kajian Hidraulik bagi Projek Pembinaan Jeti Pusat Taman Laut Pulau Tinggi, Mersing, Johor
65.	Pra-Pelaksanaan Cadangan Projek Pembinaan Kompleks Pentadbiran ESSCOM dan Perumahan di Lahad Datu, Sabah
66.	Kajian Kesesuaian Tapak Cadangan Projek Pembinaan Ibu Pejabat APMM WILTIM & DM8, Pahang Darul Makmur
67.	Penilaian kualiti air tanah di Lembangan Sungai Langat, Selangor
68.	Penilaian kualiti air tanah dan aliran ketumpatan bersandar di Pulau Mabul, Sabah
69.	Survey keberintangan geo-elektrik bagi penilaian potensi air tanah di Wilayah Persekutuan Kuala Lumpur

Bil.	Projek
1.	Penilaian Hidrologi untuk Cadangan Skim Mini-hydro di Sg Liang, Raub, Pahang untuk Tetuan Amcorp Perting Hydro Sdn. Bhd.
2.	Projek Flagship DSTIN “Penggunaan Air Lestari melalui ‘Water Food Printing’ dan Pengurusan Risiko Air” (FP051D0015-2) – Sub-Projek 4: Pembangunan Sistem Sokongan Keputusan (DSS) untuk Pengurusan Risiko Air
3.	Penilaian Kerentanan dan Adaptasi di Lembangan Sg Sarawak, Malaysia
4.	Pelaporan Vulnerabiliti dan Adaptasi Perubahan Iklim di bawah TWG V&A UNFCCC Third National Communication dan Biennial Update Report
5.	Kajian Kesesuaian Penanaman Bakau di Kudat, Sabah
6.	Kajian Kesesuaian Penanaman Bakau di Kuching, Sarawak
7.	Kajian ke atas Masalah Hakisan Tebing dan Pengendapan Pasir di MukaSauk Fasa 1 dan 2 LRA di Sg. Padas, Kg. Lawa Gadong, Beaufort, Sabah
8.	Pelan Perancangan dan Pembangunan Kawasan Tadahan Sg. Bertam, Cameron Highlands
9.	Pemodelan Fizikal untuk Lencongan Banjir Sungai Bunus, Kuala Lumpur
10.	Mengadakan Bengkel Analisa Kualiti Air
11.	Kajian Hidraulik bagi Menentukan Impak Air Kumbahan di Pantai Batu Feringghi, Pulau Pinang
12.	Projek Kerjasama NAHRIM-PHN: Kajian Hidraulik Tambatan Pengkalan Lumut, Manjung, Perak
13.	Projek Penyelidikan Kerjasama E-Science Fund: Sustainable Offshore Sand Mining di Perairan Permatang Sedepa (One Fathom Bank) (SOSMiN OFB)
14.	Detailed Design for Kemubu Pump Station System Upgrading, KADA, Kelantan: Study of Sungai Kelantan Behaviour and Irrigation Problem Under Climate Change Scenario
15.	Kajian Penjejasan dan Pengubahsuaian Iklim (Vulnerability and Adaptation) di bawah Projek Third National Communication and Biennial Update Reporting for Malaysia
16.	Kajian Piawai Pelepasan atau Kemasukan Bahan Pencemar di Lembangan Sungai Linggi
17.	Physical Modelling Study of Dredging and Disposal Works at Ringlet Reservoir in Cameron Highland
18.	Groundwater Investigation, Geological Report for Limestone Environment and Geological Terrain Report and Resistivity Survey Untuk Kawasan Pembangunan Lembah Chuping (KPLC), Perlis
19.	Kajian Kerukan Dasar Di Kuching Barrage
20.	The Development of Integrated Lake Basin Management (ILBM) Plan for Ringlet
21.	Optimisation of Cameron Highlands Sediment Removal and Disposal
22.	Kajian Penerobosan Air Masin Di Sungai Rajang, Sibul, Sarawak Kesan Daripada Peningkatan Aras Laut
23.	Penyelidikan Pelan Pengurusan dan Pembangunan Lembangan Sungai Sarawak Fasa-1, ke Arah Sekuriti dan Kualiti Sumber Air serta Kelestariannya
24.	Penyelidikan Pelan Pengurusan dan Pembangunan Lembangan Sungai Santubong ke Arah Sekuriti dan Kualiti Sumber Air serta Kelestariannya
25.	Survei Keberintangan Geofizik bagi penilaian Potensi Air Tanah di Lembangan Sungai Kurau, Lembangan Sungai Perak, Lembangan Sungai Krian, Lembangan Sungai Johor, Lembangan Sungai Pahang
26.	Kajian Kebolehlaksanaan Empangan Bawah Tanah di Pulau Langkawi, Malaysia

Bil.	Projek
1.	Kajian Penilaian Fenomena Banjir Bagi Lembangan Sungai Kelantan, Pahang, Terengganu, dan Kemaman
2.	Pengurusan Sistem Pengurusan Air Hujan dan Projek-projek yang telah dilaksanakan oleh NAHRIM (SPAH Zoo Negara, SPAH Dewan Jubli Perak SUK Selangor, SPAH Paya Indah Wetlands, I-SPAH Inkubator NAHRIM, SPAH Kuala Tahan, SPAH Betong, SPAH NAHRIM, SPAH R1 Kelantan)
3.	Pasukan Petugas Pelaksanaan Dasar Sumber Air Negara (PPPDSAN) – Kumpulan Kerja 3 – Penyelidikan dan Penyiasatan
4.	Kerja-kerja Pemulihan Tasik Zoo Negara
5.	Kajian Pemuliharaan dan Peningkatan Kualiti Air Tasik Taman Eco Ara Damansara
6.	Laporan Penyiasatan Tapak Sungai Tenegang, Sandakan, Sabah
7.	Ahli Jawatankuasa Teknikal untuk Kajian Kedapatan Air Tanah di Selangor untuk LUAS
8.	Mengadakan khidmat latihan pemodelan air bumi bagi Kolej Universiti Teknologi Sarawak
9.	Universiti Sains Malaysia (Riverbank filtration for drinking water resources abstraction (LRGS))
10.	Bantuan penyediaan kawasan kajian di Jenderam Hilir bagi kajian oleh Universiti Putra Malaysia (Performance of surfacewater and groundwater interaction methods during pumping test and water quality and geostatistik)
11.	Projek Rakan Peningkatan Aras Laut – NRE di Santubong, Sarawak
12.	Program Penanaman Bakau Dan Lain-Lain Spesies Yang Sesuai Di Pesisiran Pantai Negara
13.	Penghasilan Rancangan Fizikal Negara ke-3 (RFN3)
14.	Pembangunan Sistem Pengurusan Data Oseanografi (MyNODC / MyDAS)
15.	Pengujudatan “Sebahagian Kawasan Sensitif Lautan”
16.	Kajian Hakisan Pesisir Pantai Kebangsaan
17.	Jawatankuasa Permodelan Numerikal Tsunami dan Penilaian Impak
18.	Kajian Arus Tempur di Pantai Kerachut dan Pantai Teluk Kampi, Taman Negara Pulau Pinang
19.	Perkhidmatan Analisa Kualiti Air
20.	Kerja Penyelidikan dan Inovasi Teknologi Hijau dan Perubahan Iklim (Kumpulan Pakar Air)
21.	Projek Perintis Penyelidikan Peningkatan Kualiti Air Sg. Pandang dan Pemasangan NIDS di eksibit terpilih Zoo Negara, Mukim Hulu Klang, Daerah Gombak, Selangor Darul Ehsan –Fasa I
22.	Study on Physical Modelling of Landward Scour Due to Tsunami Bore Overtopping Seawall
23.	Study on Wave Energy Converter – Breakwater System for Low Wave Energy Shorelines
24.	Survey Geofizik Menggunakan Kaedah Keberintangan bagi Menentukan Potensi Air Tanah di Kg Orang Asli Pian, Kuala Krau, Temerloh, Pahang
25.	Kualiti Air Perigi Di Kuarters Imigresen, Raub Pahang

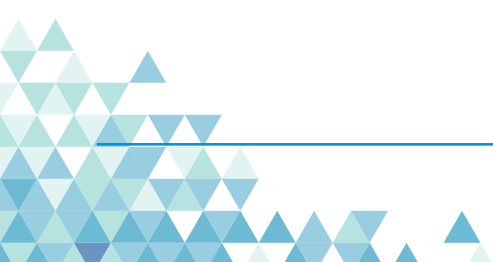
Nama Produk	Fungsi
NAHRIM Integrated Drainage System (NIDS) 	Sistem perparitan memerangkap sisa pepejal iaitu sampah-sarap, endapan, minyak dan merawat sisa terlarut melalui resapan ke simpanan air tanah.
NAHRIM Smart Drainage Trap (SMADRAT) 	Perangkap sampah kasar, minyak dan gris untuk sistem perparitan.
NAHRIM Hydraulic Channel Stabilizer (NUCLEuS) 	Teknologi mengukuh dan menstabil tebing dan dasar saluran terbuka dari hakisan akibat aliran air.

Pembangunan Produk Inovasi

Nama Produk	Fungsi
NAHRIM Hydraulic Marker (NhM) 	Penandaan rizab sungai, tasik, pantai dan sistem pengairan bagi memudahkan rujukan dan pemantauan.
NAHRIM Technical Guide No. 1 	Garis Panduan Rekabentuk infrastruktur yang berkaitan dengan air di bawah senario perubahan iklim.
Wave Breaker and Coral Restorer (WABCORE) 	Sistem pemecah ombak dan terumbu tiruan sebagai struktur pelindung pantai dan penggalak pertumbuhan batu karang serta perlindungan habitat marin.



Nama Produk	Fungsi
Bio-flocculant 	Produk alternatif menggantikan bahan alum untuk menjernih dan meningkatkan kualiti air dalam perawatan air mentah. Sludge (bahan mendak air) yang terhasil tidak perlu dirawat dan boleh dilupus secara semulajadi yang tidak mencemarkan alam.
H-Block 	Blok-blok hexagon sebagai struktur pelindung hakisan tebing dan penstabil bagi tebing/cerun sungai.



Pembangunan Produk Inovasi

Nama Produk	Fungsi
NAHRIM Sea Level Rise Projection of Malaysia (SLR Apps) 	Untuk mendapatkan nilai unjuran kenaikan aras laut tahun 2020, 2040, 2060, 2080, dan 2100 bagi persisiran pantai Malaysia dan pelabuhan utama di Malaysia.
Blok NEXC 	Produk perlindungan pantai dari hakisan tebing dan pantai. Ia juga mekanisma perluasan pantai dengan cara pemerangkapan sedimen pasir secara semulajadi.

Nama Produk

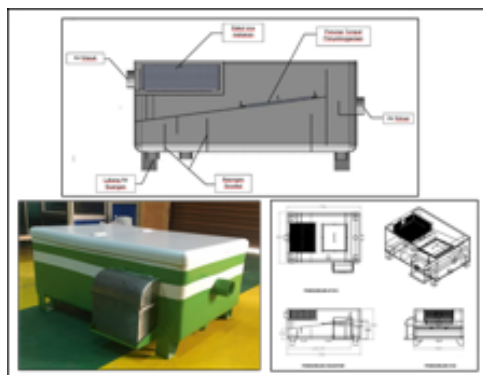
NAHRIM Hydro-Climate Analytics Accelerator (N-HyDAA) – Malaysia Climate Change Knowledge Portal



Fungsi

Konsep data-driven dan Big Data Analytics (BDA) diaplikasikan melalui sistem N-HyDAA sebagai platform perkongsian, penyebaran data, maklumat penyelidikan saintifik dan kejuruteraan berdasarkan senario perubahan iklim.

NAHRIM Oil and Food Waste Trap (NOFAT)



Produk perangkat minyak dan sisa makanan domestik dan industri ringan. Selain berfungsi memisahkan sisa minyak dalam air sisa yang masuk ke dalam sink.



NAHRIM Direct Rainwater Dispenser
Dwi fungsi air panas dan sejuk yang bersumberkan air hujan.

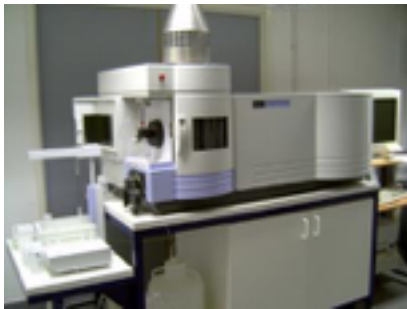
Pembangunan Produk Inovasi

Nama Produk	Fungsi
	Pembotolan minuman air hujan Sumber: Tadahan NAHRIM
	Pembotolan minuman air hujan Sumber: Tadahan Kuala Tahan, Pahang
	Rainwater Dispenser Refill bersumberkan air hujan.

Fasiliti	Fungsi	
Kemudahan pelabuhan dan Pengkalan	Kemudahan ini boleh digunakan untuk membuat simulasi kekuatan penambat dan pergerakan kapal di pelabuhan serta pengkalan pada julat keadaan laut yang digunakan dalam pemodelan fizikal pada samudera dan persisiran pantai	
Kemudahan Pantai dan Muara	Kemudahan ini boleh diaplikasikan dalam kajian kesan ombak terhadap persisiran pantai, angkutan dan perubahan sedimen dan kesan dari pembangunan persisiran pantai dan muara	
Flum 2D	Kemudahan ini digunakan untuk mengkaji bagaimana interaksi ombak dan arus terhadap bahagian tertentu pada sesuatu struktur	
Tilting Flume	Kemudahan Tilting Flume ini berkeupayaan menjana pelbagai corak dan frekuensi gelombang ombak dalam skala kecil dan pelbagai corak aliran	

Fasiliti	Fungsi	
Flum Pelbagai Fungsi	Digunakan untuk menguji kestabilan rekabentuk struktur pantai dan lepas pantai Menguji rekabentuk struktur-struktur sungai (pengerukan tiang jambatan, penampan jambatan dll)	
Model Alur Limpah Empangan	Kemudahan ini digunakan untuk mengkaji bagaimana perubahan pelbagai kadar alir mempengaruhi keupayaan alur limpah dan takungan penenang	

Nama Alat	Deskripsi Fungsi	
DR 5000 Spectrophotometer	Menjalankan analisa kuantitatif melalui pengukuran konsentrasi parameter tertentu sebuah larutan berdasarkan serapan warna pada panjang gelombang tertentu dan dibandingkan dengan satu standard	
SPE-DEX® 4790 Automated Extraction System	Untuk mengasingkan komponen-komponen yang terkandung di dalam cecair aquatic bagi tujuan analisis yang lebih spesifik seperti EDC dan Logam berat	
Bioreaktor	Menghasilkan kultur mikroorganisma dikehendaki melalui variasi persekitaran yang terkawal dari segi pH, nutrient, kontaminasi, suhu dll Mengoptima pertumbuhan mikro Menghasilkan enzyme, metabolite	
pH Meter	Memberi bacaan nilai pH dari sampel air	

Nama Alat	Deskripsi Fungsi	
YSI 6600 Multi Probe	Memberikan bacaan insitu untuk parameter tertentu, bergantung pada probe yang dipasang seperti pH, DO %, NTU dan suhu	
Cod Reactor	Menghasilkan tindak balas organik dengan pantas dan suhu dan tempoh masa yang ditetapkan	
Inductively-Coupled Plasma (ICP-OES)	Mengesan dan mengenalpasti spektrum optik dengan pelbagai tipikal 165-800nm, sama ada secara berturutan atau secara serentak	
SPB 50-48 Sample Block Digestion System	Pemanasan sampel air dengan larutan asid bagi tujuan mencernakan bahan asing di dalam sampel akuatik untuk tujuan analisis Logam Berat	

Nama Alat	Deskripsi Fungsi	
Incubator	Untuk analisis yang memerlukan kawalan persekitaran, cth: suhu	

Pencapaian penerbitan Tahun 2010 – 2019

Kategori Penerbitan	Tahun Penerbitan									Jumlah
	2010	2011	2012	2013	2014	2015	2016	2017	2019	
Buku	2	1	1	4	2	3	7	1	2	23
Judul dalam buku	-	-	1	3	1	1	1	1	-	8
Jurnal	2	4	6	11	7	12	6	16	23	64
Prosiding	5	7	12	12	9	8	10	17	5	80
Kertas Kerja (Persidangan / Seminar /Teknikal)	37	40	22	39	11	62	37	42	9	290
Laporan Teknikal	31	23	36	45	51	67	78	30	97	361
Tesis	2	-	1	2	-	-	1	2	1	8
Artikel	1	5	5	20	1	15	8	3	2	58



KEMENTERIAN KEWANGAN MALAYSIA

SIJIL AKUAN PENDAFTARAN FIRMA PERUNDING

NO. SIJIL : J11739313892244990
NO. RUJUKAN PENDAFTARAN : 465-00000960
TEMPOH SAH LAKU : 15/04/2019 - 14/04/2022

Bahawa dengan ini diperakui syarikat :

INSTITUT PENYELIDIKAN HIDRAULIK KEBANGSAAN MALAYSIA (GFUHGJUY)
LOT 5377, JALAN PUTRA PERMAI
43300 SERI KEMBANGAN
SERI KEMBANGAN
PETALING
43300 MUKIM PETALING
SELANGOR, MALAYSIA

Telah berdaftar dengan Kementerian Kewangan Malaysia dalam bidang bekalan/perkhidmatan di bawah sektor, bidang dan sub-bidang seperti di Lampiran A. Kelulusan ini adalah tertakluk kepada syarat-syarat seperti yang dinyatakan di Lampiran B. Individu yang diberi kuasa oleh syarikat bagi urusan perolehan Kerajaan adalah seperti berikut :

AZMAN BIN MAT JUSOH	650102036181	PEGAWAI PENYELIDIK KANAN
MOHD RADZI BIN ABD HAMID	610106086251	PENGARAH
MOHD ZAKI BIN MAT AMIN	651112115101	PENGARAH
SAFARI BIN MAT DESA	730830025333	PENGARAH
ISMAIL BIN TAWNIE	721009135631	PEGAWAI PENYELIDIK KANAN

l.t

DATO' ZAMZURI BIN ABDUL AZIZ

Bahagian Perolehan Kerajaan

b.p. Ketua Setiausaha Perbendaharaan

Kementerian Kewangan Malaysia

Tarikh Berdaftar Dengan Kementerian Kewangan Malaysia : 15/04/2019

(Sijil ini adalah cetakan komputer dan tidak memerlukan tandatangan)

LAMPIRAN A

NO SUJIL : J11739313892244990
NO RUJUKAN PENDAFTARAN : 465-00000960
TEMPOH SAH LAKU : 15/04/2019 - 14/04/2022

BIL	TARIKH DAFTAR BIDANG	KOD BIDANG	KETERANGAN	STATUS
1	10/04/2019	330101	PERKHIDMATAN PERUNDING FIZIKAL/ KEJURUTERAAN/ KEJURUTERAAN AWAM	Aktif
2	10/04/2019	330102	PERKHIDMATAN PERUNDING FIZIKAL/ KEJURUTERAAN/ KEJURUTERAAN STRUKTUR	Aktif

Tarikh Berdaftar Dengan Kementerian Kewangan Malaysia : 15/04/2019



DITERBITKAN OLEH
PUBLISHED BY

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Institut Penyelidikan Air Kebangsaan Malaysia (NAHRIM)
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