

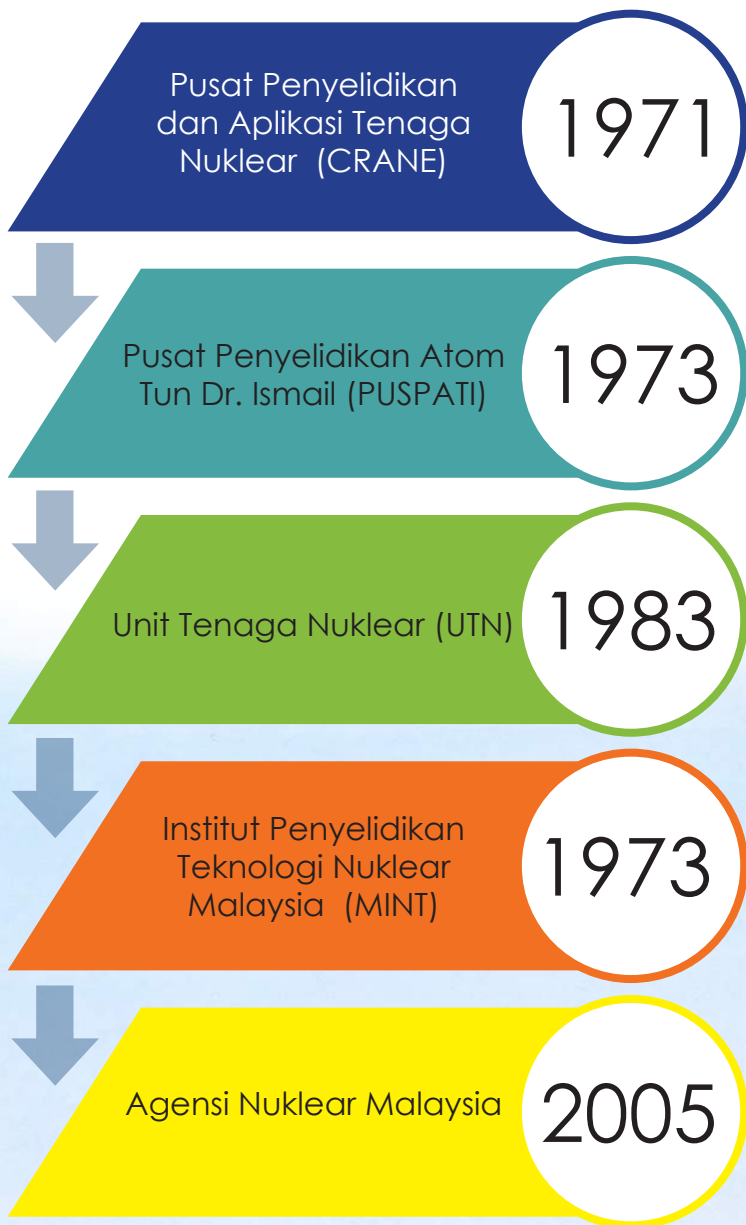
HARI PENGURUSAN PENGETAHUAN (KM)2016

29 September 2016

8.30 pg - 1.00 tghari

Dewan Tun Ismail





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Assalamualaikum w.b.t.
dan salam sejahtera.



Pendahuluan

Hari Pengurusan Pengetahuan (KM) agensi nuklear Malaysia telah diadakan pada 29 September 2016 bertempat di Dewan Tun Ismail. Seramai 159 pegawai pelbagai pangkat telah hadir bagi bersama-sama memeriahkan Hari KM tersebut. Program tersebut telah dirasmikan oleh Dr. Zulkifli bin Mohamed Hashim, Timbalan Ketua Pengarah Program Pengkomersialan dan Perancangan Teknologi.

Latar Belakang

Knowledge Management (Pengurusan Pengetahuan) telah menjadi sesuatu yang penting dalam operasi syarikat gergasi dunia pada hari ini seperti Microsoft dan Siemens. Di Malaysia, agensi seperti PETRONAS, SHELL, Bank Negara dan MARDI adalah contoh agensi yang menerapkan amalan KM ini ke dalam urusan agensi mereka. Hari KM 2016 yang telah diadakan bertujuan untuk memberi pendedahan kepada kakitangan Nuklear Malaysia mengenai pentingnya menerapkan nilai KM di dalam urusan kerja seharian. Program ini bertujuan bagi memberikan lebih pemahaman kepada peserta yang terlibat mengenai pengetahuan asas mengenai pengurusan pengetahuan dan perkongsian amalan terbaik yang dipraktikkan oleh beberapa bahagian di agensi ini.

Objektif

Objektif utama seminar ini diadakan adalah seperti berikut:

- Memberi penghargaan kepada penglibatan semua bahagian di agensi bagi menjayakan aktiviti KM di bahagian masing-masing.
- Mewujudkan suasana persaingan sihat dan keterujaan setiap bahagian yang menyertai.
- Menyatakan sokongan berterusan pihak pengurusan atasan terhadap program dan aktiviti KM di agensi

Perlaksanaan

Hari KM 2016 telah dilaksanakan dengan merangkumi beberapa aktiviti iaitu:

- Perkongsian amalan KM Petronas
- Sesi Farewell talk
- Pertandingan Poster
- Pertandingan Sharepoint
- Kuiz KM

Penasihat



Ybhg. Dato' Dr. Muhamad Bin Lebai Juri
Ketua Pengarah Nuklear Malaysia



Ybhg. Mohd. Ashhar B. Hj. Khalid
Tkp Program Penyelidikan Dan Pembangunan Teknologi
(Chief Knowledge Officer)

Pengerusi



Pn. Suzilawati Sarowi

Setiausaha



Haizum Ruzanna Bt. Sahar

AJK Rapporteur

Norzehan Binti Ngadiron



AJK Protokol & Jemputan

Mohd Sha Affandi Bin Md Aripin



AJK Protokol & Jemputan

Raja Musfarizal Binti Raja Mumad



AJK Pameran

En. Mohd Hafizal Yusof



AJK Pameran

Norhayati Binti Abdullah



AJK Teknikal & Logistik

En. Nasaai Masngut



AJK Teknikal & Logistik

Siti Nurbahyah Binti Hamdan



AJK Pendaftaran & Cenderahati

Nita Salina Binti Abu Bakar



AJK Pendaftaran & Cenderahati

Pn. Khomsatonabu Bakar



AJK Pendaftaran & Cenderahati

Robiatul Adawiyah
Bt Ahmad Tajuddin



MASA	AKTIVITI
8.30 - 9.00 am	Pendaftaran Peserta
9.00 - 9.30 am	Nyanyian lagu Negaraku Bacaan doa Ucapan Aluan Pengerusi Jawatankuasa Pelaksana hari KM & Ucapan Perasmian Ketua Pengarah NM
9.30 - 10.30 am	SLOT 1 : Petronas KM Community of Practice (CoP) oleh Cecilia Chai Head KM
10.30 - 11.00 am	Minum pagi
11.00 – 12.00 pm	SLOT 2 : Perkongsian Pengetahuan: “Dari Bangi ke Veinna” Oleh Dr. Noor Hasnah bt. Mohamed Khairullah
12.00 – 1.00 pm	Penutupan & Penyampaian hadiah • Pertandingan KM Terbaik • Pertandingan Sharepoint Site Terbaik • Pertandingan Poster KM • Kuiz Pengurusan Pengetahuan
1.00 - 2.00 pm	Makan tengahari & bersurai



Ground Penetrating Radar (GPR)

Tengku Sarah Tengku Amran^{1, a}, Mohamad Ridzuan Ahmad¹, Mohd Azmi Ismail¹, Mohamad Pauzi Ismail¹, Mohamad Syafiq Amin¹, Suhairy Sani¹, Noor Azreen Masenwat¹, Amry Amin Abas¹ and Qistina Mohamad Ludin²

¹Material and Structure Integrity Group (NDT-MSI), Industrial Technology Division, Malaysian Nuclear Agency, Bangi, 43000 Kajang, Selangor, Malaysia.
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Abstract : Ground Penetrating Radar or commonly known as GPR is a geophysical method that used electromagnetic radiation signal to image the subsurface structure. This method uses electromagnetic radiation in microwave band (UHF/VHF frequencies) of the radio spectrum and detects the reflected signals from the subsurface structure. This geophysical tool has wide range of applications such as archaeology, glaciology, hydrology, sedimentology, structural geology, and etc.

Introduction

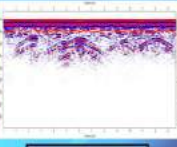
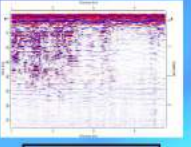
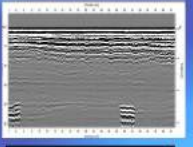
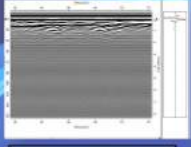
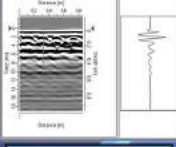
- Ground penetrating radar (GPR), is one of the non-destructive method that used electromagnetic radiation to detect the reflected signal from the subsurface structure.
- A GPR system is made up of three main components which are control unit, antenna and power supply. The control unit triggers the pulse of radar energy that the antenna sends into the ground. While antenna frequency is one of the major factors in depth penetrating.
- The reflection signal that is produce by GPR is depends on material with different electrical conduction properties or dielectric permittivity of the material.
- The strength and amplitude of the reflection is determined by the contrast in the dielectric permittivity and the conductivities of the two materials.

Applications

- Concrete Inspection
- Tunnel Wall Inspection
- Grave Detection
- Soil Layer Measurement
- Utilities (Pipes or Cable)

Case Studies





(a) Concrete Inspection (b) Utilities detection (c) Soil layer measurement (d) Tunnel wall detection (e) Grave detection

Equipment



Fig. 1 100, 250, 500, 800 and 1000 MHz GPR antenna together with control panel and laptop using MALA Ramac GroundVision software

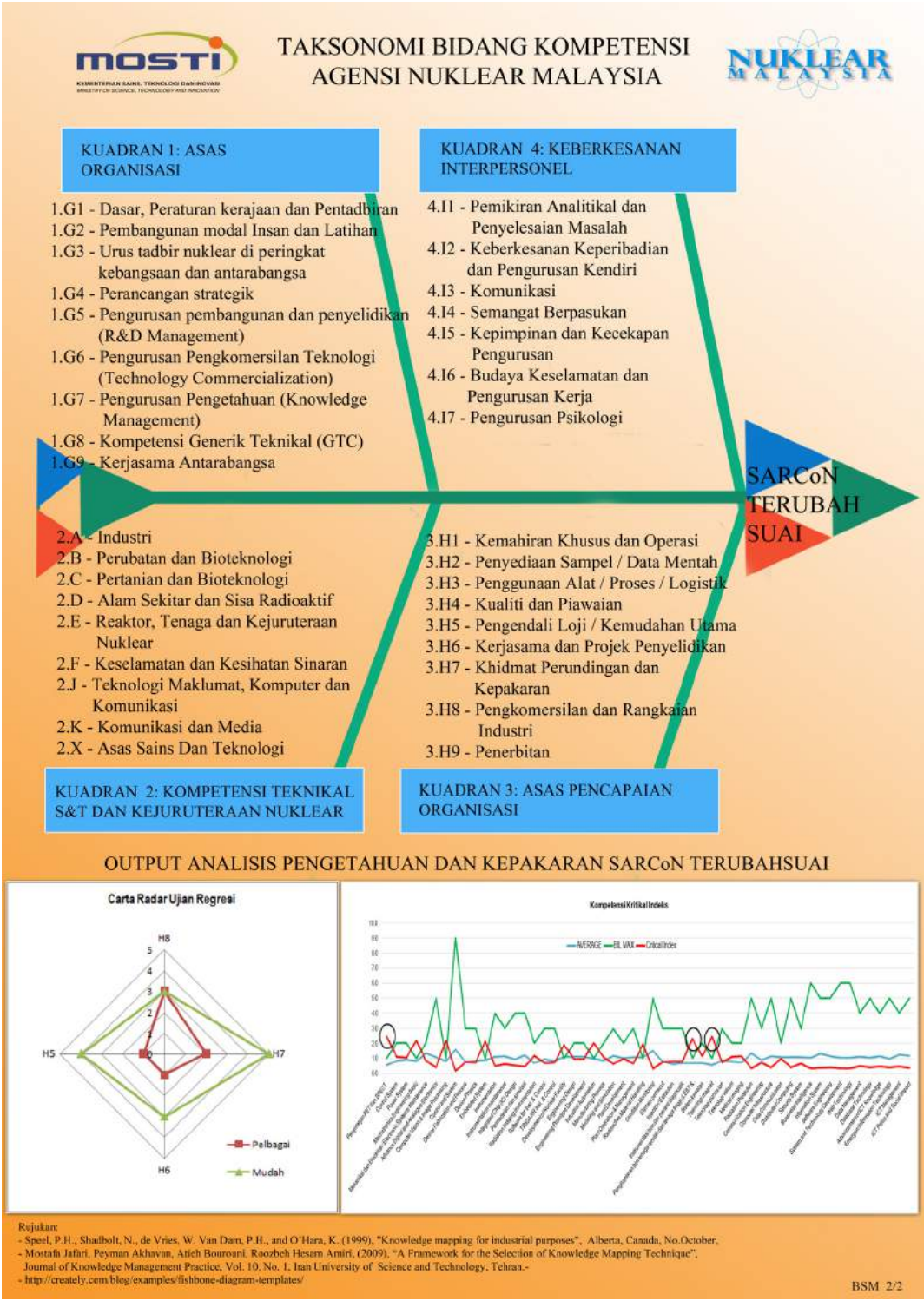
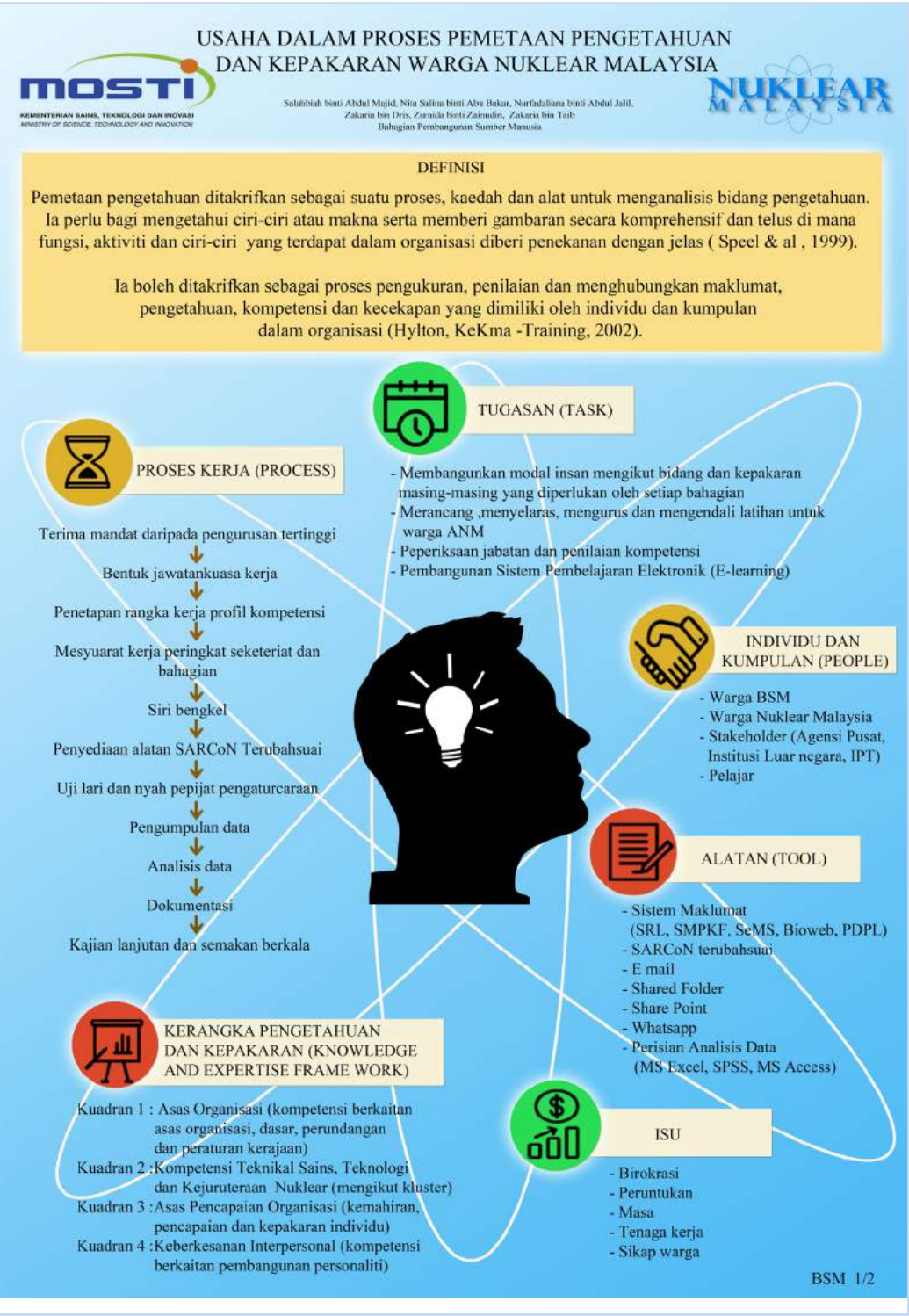
Facilities



Fig. 2 Evaluation and Verification Facilities (EVF) with different diameter, depth and spacing

Conclusion : GPR has been proven to be able to detect and range underground objects. GPR can detect both conductor and insulator material from subsurface structure. Therefore, this equipment has been widely use in industrial or research study. In the future, GPR will be an important tool in detection of underground utilities as telecommunication technology advances.

Acknowledgement : Support from MOSTI and Malaysian Nuclear Agency as well as Material and Structure Integrity Group (NDT-MSI) are gratefully acknowledged.

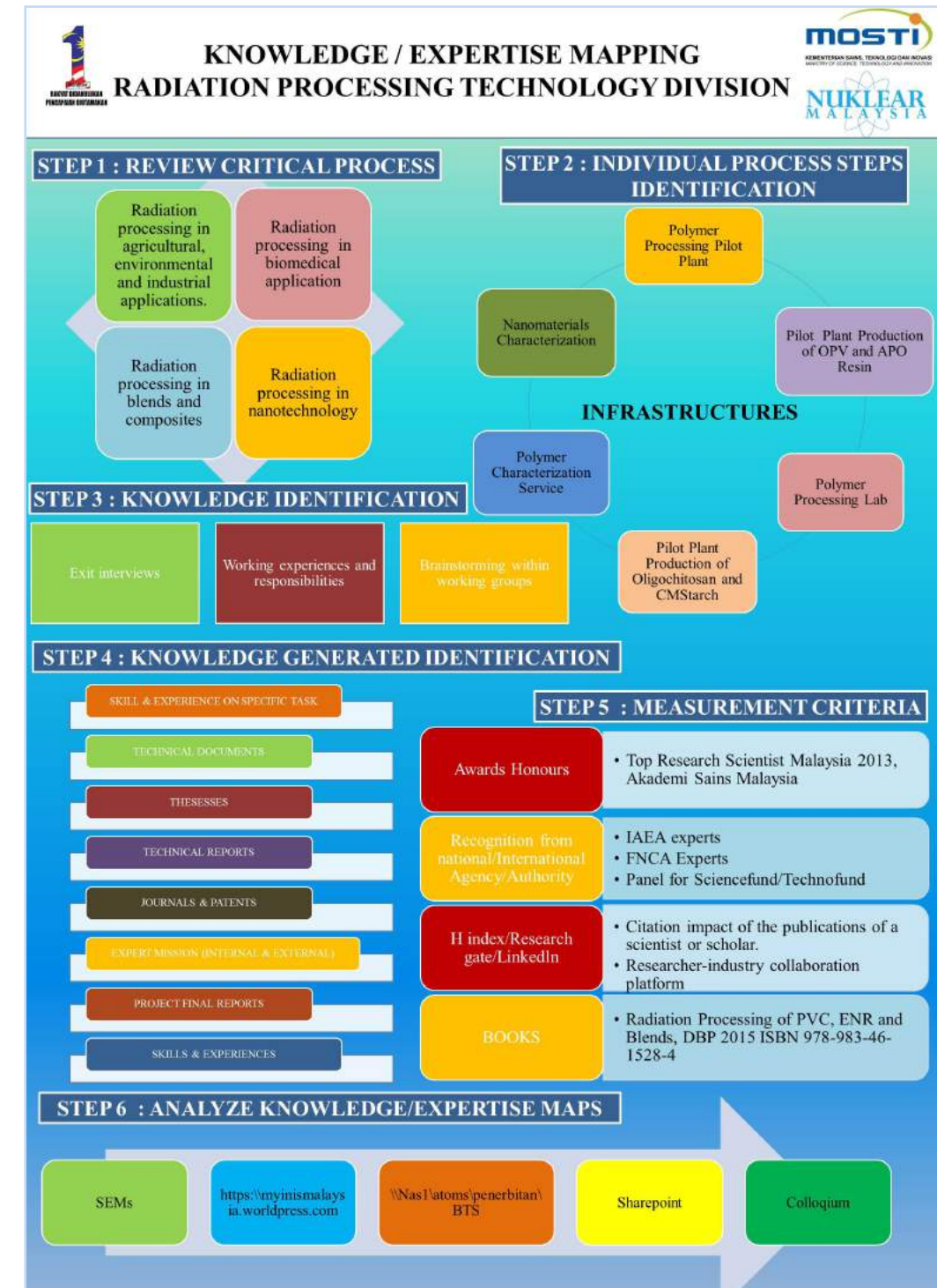


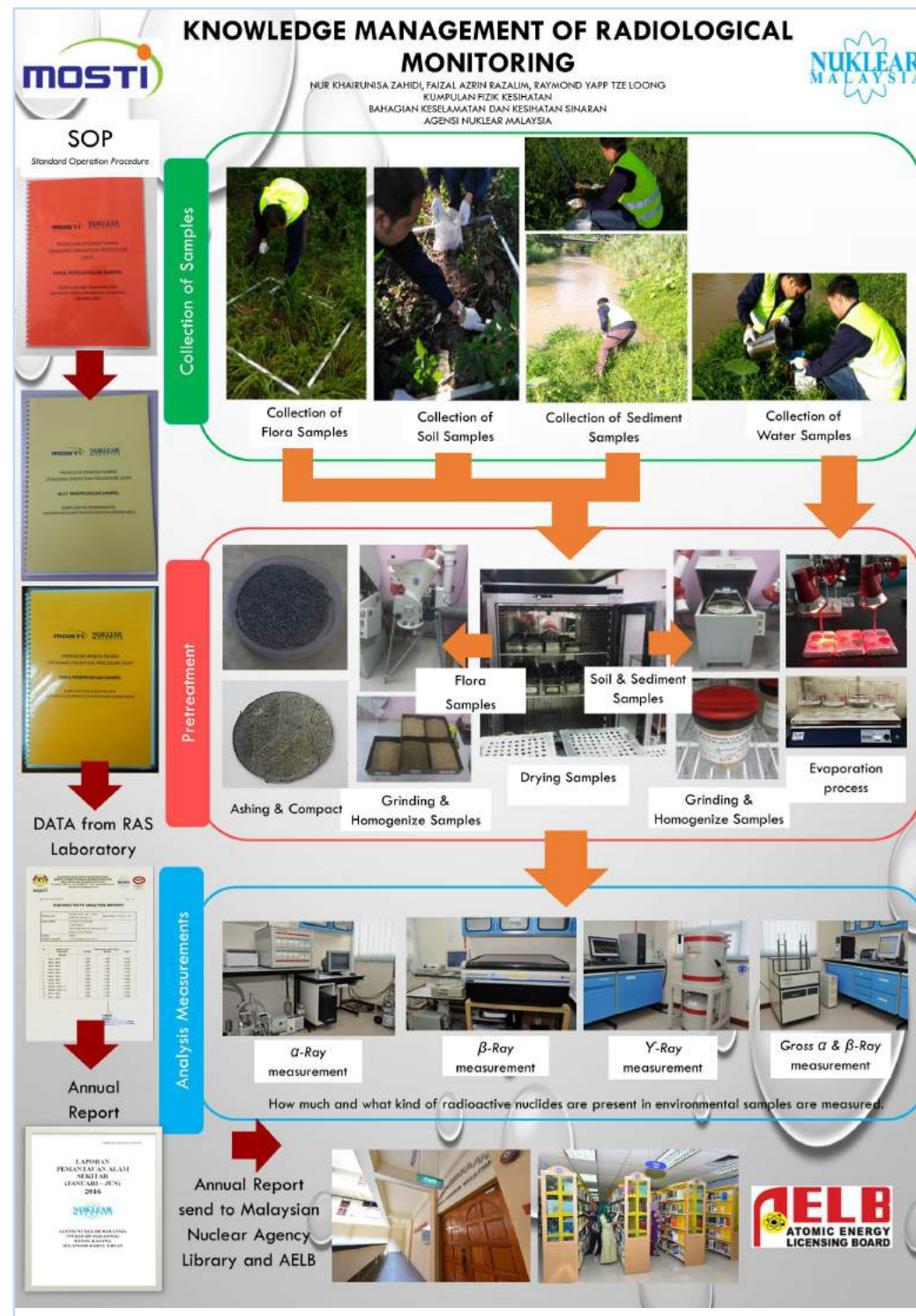


Ahamad Sahali Mardi, Robiatul Adawiyah Ahmad Tajuddin, Noor Hayati Abdul Rahman, Am Suhainiwati Sumairi, Azan Huzzaie, Musa, Majidah Mohd Taib



Norhayati Abdullah, Suzilawati Muhd Sarowi,
Roha Tukimin





**MS ISO/IEC 17025:2005:
Calibration of Dosimetric Chambers used in Diagnostic Radiology**

Introduction

The Medical Physics Calibration Laboratory was accredited with MS IEC/ISO 17025:2005 since 18 February 2013. The accreditation demonstrates that the laboratory having technical competence for a scope of calibration of dosimetric chambers used diagnostic radiology (except mammography) and a operation of laboratory quality management system. The laboratory contributed to RM 500k income to the Medical Physics Group every year. Most of our customers are from local license H companies, clinics and hospitals as well as foreign customers from Indonesia and Mongolia.

Objective

- To provide understanding of responsibility, different kind of knowledge, competencies and expertise in the Medical Physics Calibration Laboratory.

Method 1: Curriculum vitae and interview

- The laboratory consists of 8 researchers, 3 assistant engineers, 1 assistant science officer, 2 laboratory assistants and 2 administration assistants with the academic qualification as below:

Academic Qualification

Qualification	Number of Staff
M.Sc (Medical Physics)	7
Diploma (Electronic Engineering)	3
Diploma (Industrial Chemistry)	1
Sijil (Elektronik dan Perhubungan)	1
Diploma (Pendidikan awal kanak-kanak)	1
M.Sc (Biophysics Radiation)	1
STPM	1

Method 2: Evaluation of training effectiveness

- Each staff will be evaluated after internal and external trainings through examination, demonstration, training report and continuous observation by the immediate supervisor.
- The staff with the score above 80% is considered successfully achieve the level of competency.

Tasks in dosimetric calibration service

Task	Responsible person	Competent person
Quotation preparation using e-client	1	1
Receiving the calibration items (by hand or courier)	1	1
Initial inspection of the items	1	1
Perform calibration and data analysis	1	1
Data checking and report drafting	1	1
Report checking and verification	1	1
Packaging of items and Dispatch	1	1

Receiving the calibration items

Calibration works and data analysis

Conclusion

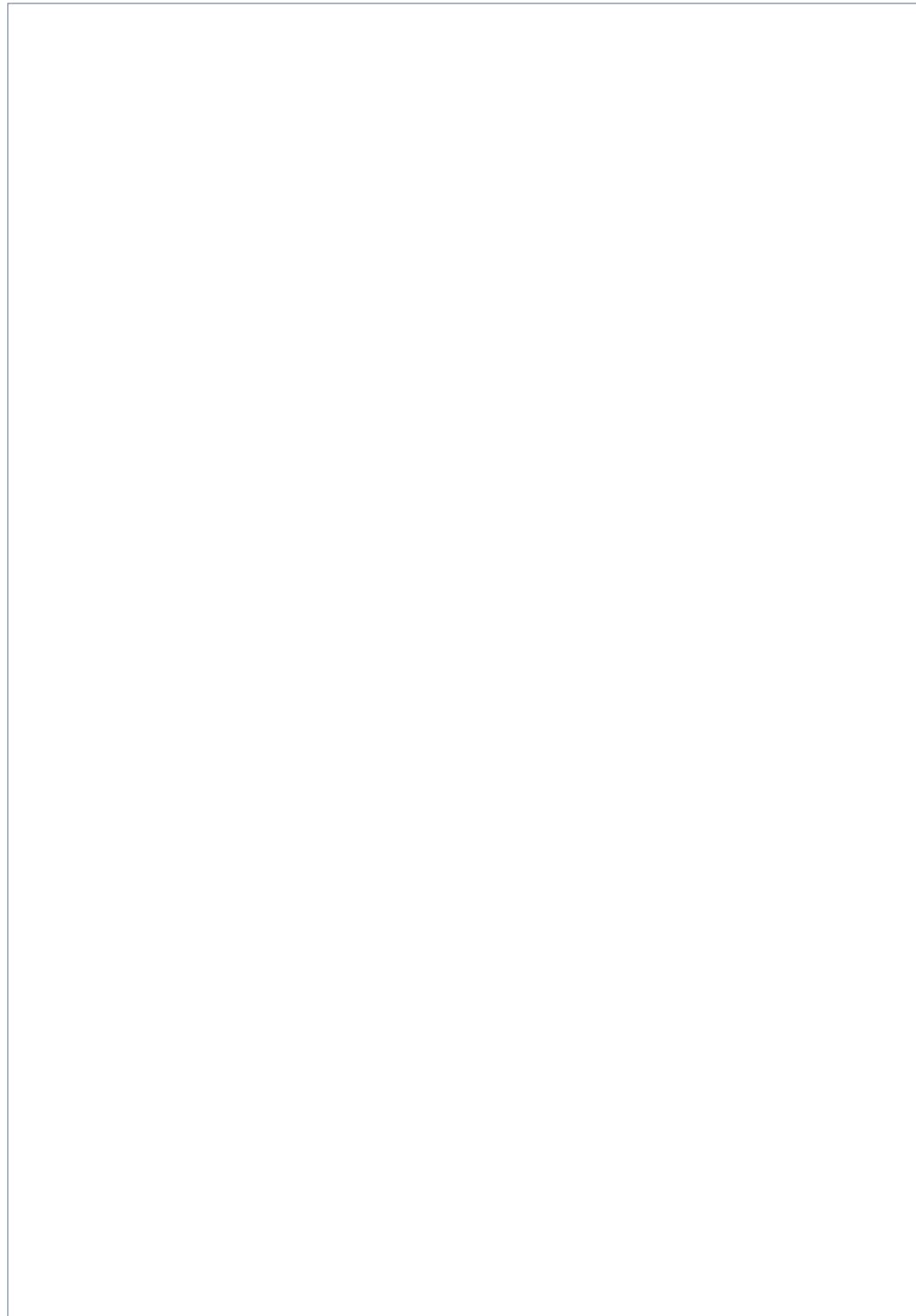
- Each staff in the laboratory understand their responsibilities, and has sufficient knowledge and competence to improve the standard and quality of calibration service under the scope of MS ISO/IEC 17025:2005.
- Expertise will be achieved through continuous efforts in human resource development and experience.

References

- LQM-KFP Section 1 Rev. 9, Scope, Medical Physics Calibration Laboratory
- LQP-KFP-Section 11 Rev. 4, Training Personnel, Medical Physics Calibration Laboratory
- LWI-KFP-Seksyen 1, Rev. 2, Carta alir khidmat tentukan Makmal Tentukan Fizik Perubatan

Contact:

- Norhayati binti Abdullah
- Laboratory Quality Manager
- Medical Physics Calibration Laboratory



SEKITAR MAJLIS



