



**NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH (NIOSH)**  
Institut Keselamatan dan Kesihatan Pekerjaan Negara



# 2021

## LAPORAN TAHUNAN ANNUAL REPORT

[www.niosh.com.my](http://www.niosh.com.my)









**Komitmen negara terhadap keselamatan dan kesihatan pekerjaan jelas dicerminkan melalui enakmen Akta Keselamatan dan Kesihatan Pekerjaan 1994 (AKKP), serta penubuhan Jabatan Keselamatan dan Kesihatan Pekerjaan (JKKP) dan Institut Keselamatan dan Kesihatan Pekerjaan Negara (NIOSH).**

**Memandangkan pembangunan ekonomi Malaysia terus meningkat selaras dengan usaha negara mencapai status negara perindustrian IR4.0, kemalangan industri di tempat kerja mungkin akan berlaku. Maka, implementasi OSH berazam memanfaatkan pihak majikan dan pekerja supaya mengelakkan kejadian malang di tempat kerja.**

*Our nation's commitment towards occupational safety and health for employers and employees in the enactment of the Occupational Safety and Health Act 1994 (OSHA), the setting up of the Department of Occupational Safety and Health (DOSH), and in the establishment of the National Institute and Occupational Safety and Health (NIOSH).*

*As Malaysia progresses toward achieving its status as an Industrialized Nation through the IR4.0 (Industrial Revolution 4.0), industrial activities would be on an increase. Given this, casualties and adversities may occur in workplaces. Hence, the need to implement greater OSH measures are pertinent for employers and employees to deter unfortunate situations.*

**NIOSH © 2022 All right reserved**

Diterbitkan oleh / Published by:

**INSTITUT KESELAMATAN DAN KESIHATAN PEKERJAAN NEGARA**

*National Institute of Occupational Safety and Health (NIOSH)*

Lot 1, Jalan 15/1, Seksyen 15, 43650 Bandar Baru Bangi, Selangor Darul Ehsan.

Tel : 03-8769 2100

Faks : 03-8926 2900

[www.niosh.com.my](http://www.niosh.com.my)

Hak cipta terpelihara. Tidak dibenarkan mengeluarkan ulung mana-mana bahagian teks, ilustrasi dan isi kandungan buku ini dalam apa jua bentuk dan dengan apa jua cara, sama ada secara elektronik, fotokopi, mekanik, rakaman atau cara lain kecuali dengan keizinan bertulis daripada Institut Keselamatan dan Kesihatan Pekerjaan Negara (IKKPN).



# ISI KANDUNGAN

## TABLE OF CONTENTS

**2**

**PROFIL KORPORAT**  
*CORPORATE PROFILE*

**12**

**PERUTUSAN MENTERI SUMBER MANUSIA**  
*MESSAGE FROM THE MINISTER OF HUMAN RESOURCES*

**16**

**PERUTUSAN Pengerusi Lembaga Pengarah**  
*MESSAGE FROM THE CHAIRMAN OF THE BOARD OF DIRECTORS*

**20**

**PERUTUSAN Pengarah Eksekutif**  
*MESSAGE FROM THE EXECUTIVE DIRECTOR*

**24**

**LEMBAGA PENGARAH DAN KUMPULAN PENGURUSAN**  
*BOARD OF DIRECTORS AND THE MANAGEMENT TEAM*

**30**

**LATIHAN**  
*TRAINING*

**54**

**KHIDMAT RUNDINGAN**  
*CONSULTANCY SERVICES*

**74**

**PENYELIDIKAN DAN PEMBANGUNAN**  
*RESEARCH AND DEVELOPMENT*

**84**

**PUSAT PENILAIAN DAN TEKNOLOGI KAWALAN KESELAMATAN DAN KESIHATAN PEKERJAAN (OSHECT)**  
*OCCUPATIONAL SAFETY AND HEALTH HAZARD EVALUATION AND CONTROL TECHNOLOGY (OSHECT)*

**108**

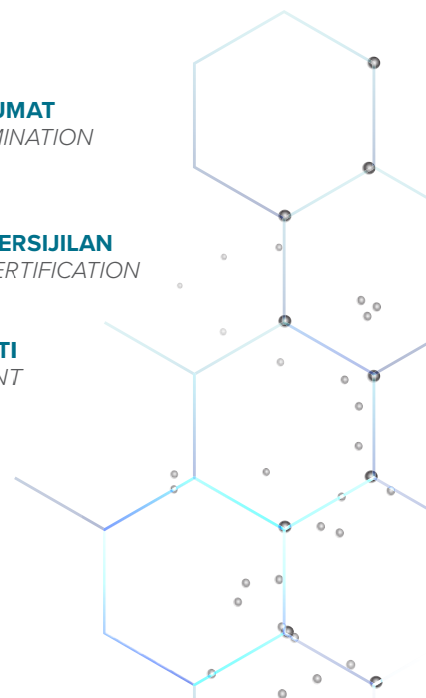
**PENYEBARAN MAKLUMAT**  
*INFORMATION DISSEMINATION*

**116**

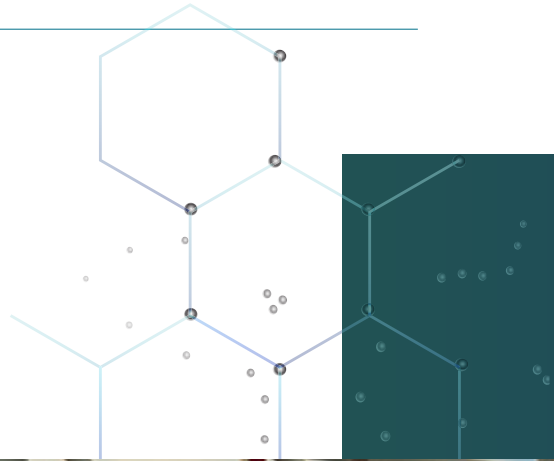
**PEPERIKSAAN DAN PERSIJILAN**  
*EXAMINATION AND CERTIFICATION*

**123**

**PENGURUSAN KUALITI**  
*QUALITY MANAGEMENT*











# PROFIL KORPORAT

*CORPORATE PROFILE*



## LATAR BELAKANG

Institut Keselamatan dan Kesihatan Pekerjaan Negara (NIOSH) ditubuhkan sebagai syarikat berhad menurut jaminan pada 24 Jun 1992 di bawah Kementerian Sumber Manusia. Bermula dengan sebuah pejabat sementara di Pusat Bandar Damansara, NIOSH telah berpindah ke Bandar Baru Bangi pada tahun 1996.

Seiring dengan permintaan yang semakin meningkat, NIOSH meluaskan lagi perkhidmatannya melalui pembentukan pejabat wilayah yang terletak di Sarawak, Sabah, Pulau Pinang, Johor dan Terengganu.

Inisiatif menubuhkan anak syarikat yang dikenali sebagai NIOSH Certification Sdn. Bhd. (NCSB) pada tahun 2004 bertujuan untuk meningkatkan budaya Keselamatan dan Kesihatan Pekerjaan (KKP) di Malaysia.

NCSB menjalankan aktiviti persijilan syarikat yang berjaya melaksanakan Sistem Pengurusan Keselamatan dan Kesihatan Pekerjaan (OSHMS) yang diiktiraf antarabangsa di samping menerima badan pensijilan yang lain.

NIOSH telah memperolehi pensijilan bagi Sistem Pengurusan Kualiti ISO 9001:2000 pada tahun 2003, ISO 9001:2008 pada tahun 2009 dan kemudiannya telah dinaiktaraf kepada ISO 9001:2015 pada tahun 2018. Pensijilan OHSAS 18001:2007 dan MS 1722:2011 telah diperolehi pada 1 Oktober 2012. Manakala Makmal Analisis Higen Industri NIOSH pula telah mendapat Akreditasi bagi pensijilan MS ISO/IEC 17025:2005 (ISO/IEC 17025:2005) pada tahun 2008.

## BACKGROUND

*The National Institute of Occupational Safety and Health (NIOSH) was established as a company limited by guarantee on 24 June 1992 under the Ministry of Human Resources, Malaysia. NIOSH began its operations from a temporary office located in Pusat Bandar Damansara, before moving to its current NIOSH headquarters in Bandar Baru Bangi in 1996.*

*As the demand for occupational safety and health services increased, NIOSH expanded its services by establishing regional offices in Sarawak, Sabah, Penang, Johor and Terengganu.*

*In 2004, a subsidiary known as NIOSH Certification Sdn. Bhd. (NCSB) was established to enhance the Occupational Safety and Health (OSH) work ethics and culture in Malaysia. NCSB undertook certification programmes for companies that had successfully implemented the internationally recognised Occupational Safety and Health Management System (OSHMS) alongside having to achieve other relevant certifications.*

*NIOSH successfully obtained the certification for ISO Quality Management System 9001:2000 in 2003, ISO 9001:2008 in 2009, and was upgraded to ISO 9001:2015 in 2018. In addition, the organisation received the OHSAS 18001:2007 and MS 1722:2011 certifications on 1 October 2012. Meanwhile, the NIOSH Industrial Hygiene Analytical Lab was accredited with MS ISO/IEC 17025:2005 (ISO/IEC 17025:2005) in 2008.*



## FUNGSI DAN OBJEKTIF

Fungsi NIOSH adalah untuk memberikan latihan, khidmat rundingan, penyelidikan dan pembangunan secara profesional, berkelayakan dan cekap serta menyebarkan maklumat dalam bidang keselamatan and kesihatan pekerjaan (KKP).

Objektif penubuhan NIOSH adalah :

- Menyumbang ke arah usaha meningkatkan tahap keselamatan dan kesihatan pekerjaan melalui pembangunan kurikulum dan program latihan untuk pekerja, majikan, dan mereka yang bertanggungjawab, secara langsung atau sebaliknya, terhadap keselamatan dan kesihatan pekerja.
- Membantu industri, perdagangan dan sektor-sektor lain dalam menyelesaikan masalah yang berkaitan dengan keselamatan dan kesihatan pekerjaan.
- Membantu mereka yang bertanggungjawab terhadap keselamatan dan kesihatan pekerjaan dengan maklumat yang terkini dari dalam dan luar negara dalam bidang keselamatan dan kesihatan pekerjaan.
- Mengendalikan penyelidikan jangka pendek dan jangka panjang dalam bidang-bidang yang berkaitan dengan keselamatan dan kesihatan pekerjaan yang boleh membawa faedah dan manfaat kepada negara.
- Menyebarkan maklumat hasil dari penyelidikan dan juga menjadi pusat rujukan di dalam bidang keselamatan dan kesihatan pekerjaan.

## FUNCTIONS AND OBJECTIVES

*The function of NIOSH is to provide qualified training, consultancy, research and development, and disseminate information on Occupational Safety and Health (OSH) on a professional level.*

*The objectives of establishing NIOSH are:*

- *To contribute toward the effort to increase the level of Occupational Safety and Health (OSH) at the workplace by developing curriculum and training programmes for both employers and employees, and for those responsible for OSH at the workplace through direct or auxiliary roles.*
- *To assist the industry and commercial sector, and other sectors in resolving OSH-related problems.*
- *To assist those responsible for OSH by providing them with updated OSH information coming from domestic and offshore sources.*
- *To undertake short-term and long-term research in fields related to OSH that would be resourceful and beneficial to the nation.*
- *To publish and disseminate information from research findings, and to become the centre for research and referencing in the field of OSH.*

## DIREKTORI PEJABAT NIOSH DI MALAYSIA DIRECTORY OF NIOSH OFFICES IN MALAYSIA







## IBU PEJABAT NIOSH NIOSH HEADQUARTERS

### IBU PEJABAT NIOSH MALAYSIA NIOSH MALAYSIA HEADQUARTERS

 NIOSH Bandar Baru Bangi  
 Lot 1, Jalan 15/1, Section 15,  
 43650 Bandar Baru Bangi,  
 Selangor Darul Ehsan  
 +603 8769 2100 / +603 8911 3800  
 +603 8926 2900  
 general@niosh.com.my

## PEJABAT-PEJABAT WILAYAH REGIONAL OFFICES

### PEJABAT WILAYAH SELATAN SOUTHERN REGIONAL OFFICE

**NIOSH Johor Bahru**  
 No. 10, Jalan Persiaran Teknologi,  
 Taman Teknologi Johor,  
 81400 Senai, Johor Bahru, Johor  
 +607 599 1200  
 +607 599 0200  
 johor@niosh.com.my

**NIOSH Pengerang**  
 Lot 73 & 75, Jalan Kempas 1,  
 Desaru Utama, Bandar Penawar,  
 81930 Kota Tinggi, Johor  
 +607 828 0183 / +607 886 1139  
 +607 828 0193  
 pengerang@niosh.com.my

**NIOSH Melaka**  
 Bangunan World Youth Hotel,  
 Lebuhraya Ayer Keroh,  
 75450 Ayer Keroh, Melaka  
 +606 232 6866  
 <https://wa.me/60192299071>  
 melaka@niosh.com.my

### PEJABAT WILAYAH UTARA NORTHERN REGIONAL OFFICE

**NIOSH Pulau Pinang**  
 Lot 8872, Jalan Bertam 2, MK.6,  
 Bertam, 13200 Kepala Batas,  
 Pulau Pinang  
 +604 380 1200  
 <https://wa.me/60192299724>  
 penang@niosh.com.my

**NIOSH Manjung**  
 Jalan PPMP 3/4,  
 Pusat Perniagaan Manjung Point  
 32040 Seri Manjung, Perak  
 +605 689 0701  
 +605 689 0715  
 manjung@niosh.com.my

**PEJABAT WILAYAH PANTAI TIMUR**  
**EAST COAST REGIONAL OFFICE**





**NIOSH Kerteh**

 Lot 12853, Jalan Lapangan Terbang,  
 Kampung Darat Kolam,  
 24300 Kerteh, Terengganu  
 +609 826 4000 / +609 826 4001  
 +609 826 4000  
 terengganu@niosh.com.my

**NIOSH Kota Bharu**





 Lot 1155, Jalan Bendahara 3/36,  
 Taman Bendahara,  
 16100 Kota Bharu, Kelantan  
 +609 773 1710  
 +609 773 1711  
 kelantan@niosh.com.my

**NIOSH Kuantan**





 No. B12, Jalan KS 1/12,  
 KotaSAS Avenue, Kota Sultan Ahmad Shah,  
 25200 Kuantan, Pahang  
 +609 575 0521  
 +609 575 0522  
 kuantan@niosh.com.my

**PEJABAT WILAYAH SABAH**  
**SABAH REGIONAL OFFICE**

**NIOSH Kota Kinabalu**

 Lot B (22-27)-3, Level 3 (2nd Floor), Block B,  
 Harbour City, Sembulan, Jalan Pantai Baru,  
 88100 Kota Kinabalu, Sabah  
 +608 826 4252  
 +608 826 3252  
 sabah@niosh.com.my

**NIOSH Sandakan**

 Institut Latihan Perindustrian Sandakan (ILP),  
 Tingkat 1, Bahagian Pusat Sumber & Multimedia,  
 Batu 5, Jalan Sibuga, 90000 Sandakan, Sabah  
 +608 966 3761  
 +608 966 3762  
 sabah@niosh.com.my

**PEJABAT WILAYAH SARAWAK**  
**SARAWAK REGIONAL OFFICE**

**NIOSH Bintulu**

 3rd Floor Commercial, Block C2,  
 Naim Street Mall,  
 Bintulu Paragon, Jalan Old Airport,  
 97000, Bintulu Sarawak  
 +6019 233 3947 / +6019 233 3975  
 +608 631 5501  
 sarawak@niosh.com.my



**NIOSH Kuching**

 Wisma Hamizan, Ground Floor,  
 Lot 851 Sublot 16, Seksyen 65,  
 KTLD Off Jalan Astana, Petra Jaya,  
 93050 Kuching, Sarawak.  
 +608 253 6801 / +608 253 6803  
 +608 253 6802  
 sarawak@niosh.com.my

**NIOSH Miri**

 Lot 10620,  
 Miri Commercial Shop Lot, Airport Road,  
 98000 Miri, Sarawak  
 +608 563 6840 / +608-563 6940  
 +608 563 6140  
 sarawak@niosh.com.my





**NIOSH Kapit**

 Sublot 3688, Lot 1074, Block 13,  
 Menuan Land District, 96800 Kapit, Sarawak  
 +608 479 6043  
 sarawak@niosh.com.my

**NIOSH Tawau**

 Lot 1, Ground Floor, Blok A,  
 Jalan Plaza Damai,  
 91000 Tawau, Sabah  
 +608 975 6302 / +608 975 6304  
 +608 975 6303  
 tawau@niosh.com.my

**NIOSH Wilayah Persekutuan Labuan**

 1st Floor, Lot 1 & 2, Block A, Shermadef Commercial  
 Centre, KM 1.5, Jalan Patau-Patau,  
 87018 Federal Territory, Labuan  
 +608 742 3254  
 +608 742 3255  
 labuan@niosh.com.my

## UNIT KHIDMAT PELANGGAN CUSTOMER SERVICE UNIT



+603 8769 2100  
+603 8911 3800



Umum / General  
<https://wa.me/60196664106>

Latihan / Training  
<https://wa.me/60132224966>

Peperiksaan / Exam  
<https://wa.me/60196668599>



E-mel / E-mail  
[general@niosh.com.my](mailto:general@niosh.com.my)



Laman sesawang / Website  
[www.niosh.com.my](http://www.niosh.com.my)



Laman Facebook / Facebook page  
[@nioshmalaysia](https://www.facebook.com/nioshmalaysia)

## WAKTU OPERASI OPERATION HOURS

Isnin hingga Khamis / Monday to Thursday  
**8.00<sup>AM</sup> - 5.00<sup>PM</sup>**

Jumaat / Friday  
**8.00<sup>AM</sup> - 12.15<sup>PM</sup>**  
**2.45<sup>PM</sup> - 5.00<sup>PM</sup>**



Tutup pada hari Sabtu, Ahad  
dan cuti umum (Selangor)  
Closed on Saturday, Sunday and  
public holidays (Selangor)

## VISI VISION

Menjadi pusat kecemerlangan  
Keselamatan dan Kesihatan  
Pekerjaan terunggul di Malaysia.

*To be the leading centre of  
excellence in Occupational Safety  
and Health in Malaysia.*



## MISI MISSION

Menyediakan penyelesaian yang  
praktikal dalam bidang Keselamatan  
dan Kesihatan Pekerjaan.

*To provide practical solutions in the  
field of Occupational Safety and  
Health.*







# NILAI-NILAI KORPORAT

## CORPORATE VALUES

### 01 **Komitmen *Commitment***

Kesemua kakitangan NIOSH wajib berdedikasi dan berkomitmen tinggi dalam kerjaya mereka.  
*All staff at NIOSH are required to be dedicated employees committed to contribute at maximum capacity.*

### 02 **Telus *Transparency***

Prosedur dan sistem yang berkaitan dengan kerja mestilah telus supaya sikap kepentingan keperibadian disingkirkan.  
*Transparency in work procedures and systems must be observed to eliminate personal vested interests.*

### 03 **Kerja Berpasukan *Teamwork***

Semua kakitangan mesti menunjukkan komitmen yang tinggi dengan memastikan objektif kerja berpasukan dicapai.  
*All staff members must devote high levels of commitment to ensure the objective any given teamwork is achieved.*

### 04 **Jujur *Honesty***

Interaksi mesti bebas dari sikap ketidakjujuran, berat sebelah dan tipu daya.  
*Interaction must be free of insincerity, partiality and deceit.*

### 05 **Integriti Profesional dan Peribadi *Professional and Personal Integrity***

NIOSH mengharapkan semua kakitangannya mengamalkan prinsip moral kejujuran and kesetiaan.  
*NIOSH expects its staff to have moral principles of loyalty and honesty in their work and service to the organisation.*

### 06 **Kualiti *Quality***

Semua produk dan perkhidmatan yang ditawarkan oleh NIOSH mesti memancarkan prestasi berkualiti tinggi.  
*All products and services offered by NIOSH must exude performance of the highest quality.*

### 07 **Kepakaran Teknikal *Technical Expertise***

Semua kakitangan NIOSH mesti menggambarkan pengetahuan teliti dan komprehensif.  
*All NIOSH staff members must demonstrate comprehensive and in-depth technical knowledge.*

### 08 **Kepimpinan *Leadership***

Semua kakitangan mesti melaksanakan kepimpinan yang efektif dan cekap.  
*All staff members must execute leadership effectively and proficiently.*

### 09 **Komunikasi *Communication***

Semua kakitangan mesti sentiasa mengamalkan komunikasi secara efektif.  
*All staff members must constantly harness effective communication skills.*

### 10 **Pembangunan Sumber Manusia *Human Resource Development***

NIOSH mempromosikan pembangunan sumber manusia secara berterusan untuk meningkatkan kemampuan peribadi.  
*NIOSH continuously promotes human resource development for all employees potential growth and capacity building.*





# PERUTUSAN MENTERI SUMBER MANUSIA

*MESSAGE FROM THE  
MINISTER OF HUMAN  
RESOURCES*



# *Salam Sejahtera dan Salam Keluarga Malaysia*

**S**ekalung tahniah ingin saya sampaikan kepada warga NIOSH bagi berjaya mengekalkan prestasi cemerlang dan ucapan terima kasih yang tidak terhingga untuk memberikan sokongan padu kepada Kementerian Sumber Manusia dalam segala usaha untuk pembangunan modal insan.

Semangat kerja berpasukan, kesungguhan dalam melaksanakan tanggungjawab serta komitmen padu di setiap peringkat organisasi membolehkan Institut Keselamatan dan Kesihatan Pekerjaan Negara (NIOSH) sekali lagi berjaya mengharungi pelbagai cabaran dan perubahan yang berlaku sepanjang tahun 2021 dengan cemerlang.

Komitmen kerajaan dalam melindungi sumber manusia adalah berpaksikan prinsip Inklusiviti dan Budaya Kerja Selamat. Pada peringkat nasional, pelaksanaan strategi jangka panjang Sistem Pengurusan Keselamatan dan Kesihatan Pekerjaan (KKP) ini, adalah ternyata selaras dengan Konvensyen Pertubuhan Buruh Antarabangsa 2006.

Antara inisiatif penting yang telah diperkenalkan bagi meningkatkan sistem pengurusan KKP ialah Dasar Keselamatan dan Kesihatan Pekerjaan Negara 2019 dan Sistem Keselamatan dan Kesihatan Pekerjaan Negara. Bagi mendepani apajua cabaran, Kementerian Sumber Manusia melalui Majlis Negara bagi Keselamatan dan Kesihatan Pekerjaan (MNKKP) dan Jabatan Keselamatan dan Kesihatan Pekerjaan (JKKP) telah merangka Pelan Induk Keselamatan dan Kesihatan Pekerjaan 2021-2025 (juga dikenali sebagai OSH-MP-25).

Pelan Induk Jangka Sederhana selama 5 tahun ini merupakan kesinambungan pelan yang sama sebelum ini. Ia bertujuan menerapkan nilai inklusif bagi menggalakkan penyertaan semua pihak agar bertumpu pada transformasi sistem KKP di seluruh negara.

Di peringkat tempat kerja, budaya keselamatan dan kesihatan pekerjaan (KKP) yang kukuh ialah budaya di mana hak untuk mendapatkan persekitaran kerja yang selamat dan sihat dihargai dan digalakkan oleh pihak pengurusan dan pekerja. Budaya KKP yang positif dibina atas penyertaan dan penglibatan semua pihak dalam meningkatkan penerusan proses keselamatan dan kesihatan di tempat kerja.

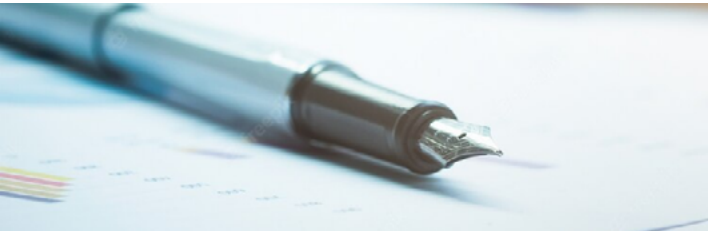
Budaya sebegini memerlukan komunikasi dan dialog terbuka yang dibina atas kepercayaan dan saling hormat-menghormati. Ketika kami terus mengharungi krisis kesihatan global COVID-19 dan menghadapi risiko yang berterusan dalam dunia pekerjaan, kita mesti terus bergerak ke arah membina budaya keselamatan dan kesihatan yang kukuh di semua peringkat organisasi.

Saya juga amat percaya dengan kombinasi di antara majikan yang prihatin, pekerja yang berkualiti dan produktif, budaya selamat dan sihat serta keadaan persekitaran kerja yang kondusif, maka pastinya produk dan perkhidmatan yang dihasilkan oleh sesebuah organisasi akan mencapai tahap serta standard yang dikehendaki.

Maka saya berharap NIOSH akan meneruskan usaha menerapkan budaya pencegahan kemalangan dan penyakit pekerjaan di semua sektor selain merakyatkan Keselamatan dan Kesihatan Pekerjaan (KKP) melalui pelbagai program di seluruh negara yang melibatkan pekerja dan orang awam.

Sekian, Terima Kasih





## YB DATUK SERI M SARAVANAN

**MENTERI SUMBER MANUSIA**

*Minister of Human Resources*

I would like to extend my wholehearted congratulations to the employees of NIOSH for successfully maintaining their excellent performance and unequivocal appreciation for their firm support to the Ministry of Human Resources in its efforts to build human capital development.

The spirit of teamwork, determination in carrying out responsibilities and strong commitment at every level of the organisation enabled the National Institute of Occupational Safety and Health (NIOSH) to once again successfully and adeptly weather challenges and vicissitudes that occurred throughout 2021.

The government's commitment in protecting human resources is focused on the principles of Inclusiveness and A Safe Work Culture. At the national level, the implementation of a long term strategy in Occupational Safety and Health Management System (OSHMS) is in line with the International Labour Organization Convention 2006.

Among the significant initiatives that were introduced to improve OSH management system are the National Occupational Safety and Health Policy 2019, and the National Occupational Safety and Health System. To meet whatsoever challenges, the Ministry of Human Resources through the National Council for Occupational Safety and Health (NCOSH) and the Department of Occupational Safety and Health (DOSH) drafted the Master Plan for Occupational Safety and Health 2021-2025 (also known as OSH-MP-25).

This 5-year Short Term Master Plan is a continuation of the previous plan. It aims to inculcate inclusiveness values to encourage the participation of all entities to converge with the transformation of the OSH system across the country.

At the workplace level, a resolute occupational safety and health (OSH) culture is regarded as a right for a safe and healthy work environment. It is valued and encouraged by management and employees. A positive OSH culture is built on the involvement of all parties in a continuous improvement process for safety and health in the workplace.

This type of OSH workplace culture would require open communication and dialogue built on trust and mutual respect. As we continue to weather the COVID-19 global health crisis and face ongoing risks in the work environment, we must continue to move towards building a strong, safe and healthy work culture at all levels of the organisation.

I also determinedly believe that with a combination of caring employers, quality and productive employees, a safe and healthy work culture, and a conducive work environment, would surely secure the products and services generated by an organisation to reach its desired level and standard.

It is my hope NIOSH will continue its efforts to inculcate a culture of occupational accident and disease prevention in all sectors as well as popularise Occupational Safety and Health (OSH) through various programmes across the country that would involve the organisation's employees and the public.

Thank you





# MESEJ PENGERUSI LEMBAGA PENGARAH

*MESSAGE FROM CHAIRMAN OF  
THE BOARD OF DIRECTORS*



# *Salam Sejahtera dan Salam Keluarga Malaysia*

Tahun 2021 merupakan permulaan penuh berliku dan penuh cabaran bagi Institut Keselamatan dan Kesihatan Pekerjaan Negara (NIOSH). Pasca pandemik COVID-19 telah mengajar kita untuk lebih bersedia dalam mendepani sebarang kemungkinan luar jangkaan yang akan berlaku pada masa hadapan dalam memastikan peranan dan fungsi NIOSH terus kekal menjadi relevan kepada pemangkin industri negara.

Saya ingin merakamkan setinggi-tinggi penghargaan kepada warga kerja NIOSH di atas semangat setiakawan dan kesiapsiagaan dalam mendepani cabaran bertugas dalam keadaan norma baharu. Saya pasti ianya bukan sesuatu yang mudah namun semangat juang kakitangan yang sentiasa mempunyai motivasi diri yang tinggi dalam meningkatkan prestasi dan mencapai sasaran yang ditetapkan oleh Lembaga Pengarah dan pihak Pengurusan NIOSH.

Permulaan tahun 2021 adalah lebih baik berbanding tahun sebelumnya, namun tempas pandemik masih dirasai oleh semua pihak. Namun begitu, usaha berterusan serta sokongan padu dari semua pihak akhirnya membuahkan hasil apabila pendapatan yang telah direkodkan oleh NIOSH pada tahun 2021 mencapai sasaran yang telah ditetapkan. Saya mengucapkan tahniah kepada semua warga NIOSH dari seluruh negara di atas komitmen yang tinggi ini.

Apa yang lebih membanggakan, ada di antara Pejabat Wilayah dan Satelit yang mampu melepasi sasaran yang ditetapkan dengan cemerlang dan ia seharusnya menjadi penanda aras kepada yang lain untuk meningkatkan prestasi masing-masing. Ini mengingatkan saya kepada satu peribahasa “Berat sama dipikul, ringan sama dijinjing”. Bersama kita sebagai sebuah Keluarga Malaysia bergerak bagi memartabatkan lagi institusi ini.

Sepanjang tempoh tahun 2021, saya turut berkesempatan menyantuni serta berinteraksi dengan beberapa rakan kongsi NIOSH yang telah banyak menyumbang kepada pembangunan organisasi secara holistik. Sekalung tahniah

ingin saya sampaikan kepada warga NIOSH kerana berjaya mengekalkan prestasi cemerlang manakala ucapan terima kasih yang tidak terhingga kepada semua pihak yang telah memberikan sokongan padu termasuk Kementerian Sumber Manusia dan agensi-agensi di bawahnya.

NIOSH juga tidak melupakan tanggungjawab untuk membantu mereka yang memerlukan bantuan ketika negara dilanda bencana banjir pada penghujung tahun 2021 dan ramai kakitangan turut terkesan dengan musibah ini, Terima kasih kepada pihak Pengurusan di atas tindakan pantas menghulurkan bantuan serta pertolongan bagi membantu meringankan beban mereka. Selain daripada itu banyak program lain seperti bantuan rakyat telah dihulurkan bagi meringankan beban yang ditanggung oleh mereka yang memerlukan.

Walaupun program sebegini tidak mendatangkan keuntungan dalam bentuk wang ringgit, ia merupakan pelaburan jangka panjang dan sebahagian daripada tanggungjawab sosial korporat NIOSH. Saya percaya dengan menghulur bantuan amal sebegini merupakan sebahagian daripada amalan mulia yang patut dicontohi oleh semua. Saya sentiasa menyokong dan mengalakkan agar program-program seperti ini dapat diteruskan dalam skala yang lebih besar pada masa akan datang.

Adalah menjadi harapan saya agar warga kerja NIOSH akan terus bekerja keras agar kami mampu mencapai sasaran lebih tinggi yang ditetapkan untuk tahun-tahun mendatang.

Saya sentiasa mempunyai kepercayaan yang tinggi kepada warga NIOSH dan amat yakin mereka mampu untuk mencapai segala sasaran yang telah ditetapkan di samping terus melaksanakan amanah dan tanggungjawabnya kepada negara dan rakyat dengan sokongan padu Lembaga Pengarah dan pihak pengurusan.

Sekian terima kasih.



## YB DATUK WILSON UGAK ANAK KUMBONG

### PENGERUSI LEMBAGA PENGARAH

*Chairman of The Board of Directors*

The year 2021 was a juncture that began with a challenging pathway for the National Institute of Safety and Health Malaysia. As we entered the COVID-19 post-pandemic phase, the lessons learned have taught us to be more prepared to face unforeseen circumstance and situations that may occur in the near or far future. More so, the said preparation is to ensure the role and function of NIOSH will remain sturdy and relevant to investors, patrons and benefactors of the nation's industry.

I wish to make it a pronouncement in extending my deepest gratitude to all NIOSH employees for their readiness and loyalty to handle challenging tasks as we begin the new normal phase in our workplace at the Institute. Furthermore, I understand the difficulties we will encounter. However, our spirit of determination, and self-driven motivation will increase performance quality and achievements of the Institute. We will then accomplish the targets set by the Board of Directors and Management of NIOSH.

As 2021 kicked-off, we began on a better footing compared to the year before. Nevertheless, the battering effects of the worldwide pandemic continues to be felt by all in the Institute let alone the entire nation and the global community. However, our persistent efforts and continued support from all at NIOSH resulted in the Institute achieving its targeted revenue for 2021. Such an accomplishment in a year filled with tremendous difficulties deserves commending. Hence, I wish to once again extend my congratulations to all NIOSH employees throughout Malaysia for their enduring commitment.

Another great example I am proud to recognise is Regional Offices and Satellite Offices that went beyond the targets set and achieved excellent performance. They represent benchmarks for all employees to refer to as we each do our utmost best to improve and increase our performance levels. Having said this, I am reminded of a Malay proverb "Berat sama dipikul, ringan sama dijinjing" - meaning, in hard times we help carry one another's burdens and in good times we share one another's happiness. Let us together as a "Keluarga Malaysia" move forward to dignify this Institute with greater successes.

During the year 2021, I had the opportunity to interact and build stronger work relationships with my colleagues at NIOSH especially those who had contributed immensely to the holistic growth of the Institute. Hence, I acknowledge the employees who succeeded in maintaining excellence work performance levels. Meanwhile, the same expression of gratitude is extended to all who rendered their collective support including our colleagues at the Ministry of Human Resources, and its associated agencies.

Regardless of work priorities, NIOSH did not forget its corporate social responsibilities to extend help to the needy. During the year 2021, the Institute assisted communities and families affected by the devastating monsoon floods. Among many of the victims were also employees of NIOSH. Words of gratitude are expressed to the Institute's Management for swiftly providing assistance to victims of the monsoon floods. Besides helping flood victims, other programmes were initiated to assist the public and lessen their livelihood burdens.

These programmes are now a long term corporate social responsibility effort by NIOSH. I believe these exemplary endeavors represent NIOSH as a role model in doing good works. Programmes such as these will continue to be supported and encouraged so as to have it develop into more purposeful CSR projects in the near future.

It is my hope that all employees at NIOSH will continue diligently in their respective work scope in order for the Institution to achieve higher targets and greater heights in the years to come.

I am strongly confident with the work force at NIOSH and believe they have the ability and capacity to achieve all targets given to them in an honest, trusted and responsible manner so as to have NIOSH deliver its objectives for the benefit of local industries, the public and the country receiving full support from the Board of Directors and the Management.

Thank you.

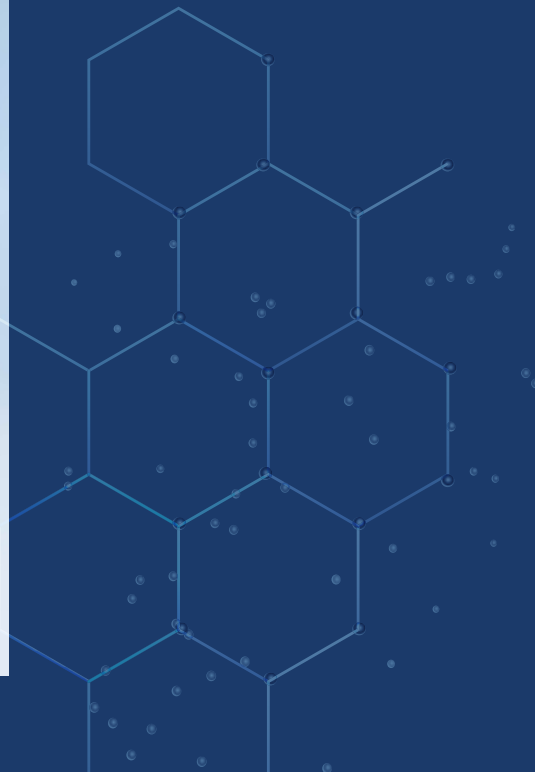






# PERUTUSAN PENGARAH EKSEKUTIF

*MESSAGE FROM THE  
EXECUTIVE DIRECTOR*





*Assalamualaikum wbt dan  
selamat sejahtera,*

*Assalamualaikum wbt and well wishes to all,*

**S**yukur kepada Allah SWT atas kurniaan yang telah diberikan kepada NIOSH dalam mencapai sasaran tahun 2021. Setinggi-tinggi penghargaan dan ucapan terima kasih kepada Menteri Sumber Manusia serta Kementerian Sumber Manusia kerana telah memberi kepercayaan dan sokongan kepada NIOSH dalam memastikan keselamatan and kesihatan tempnt kerja dilaksanakan demi aspirasi 'Keluarga Malaysia'.

Ucapan terima kasih kepada YB Datuk Wilson Ugak Anak Kumbong selaku Pengerusi NIOSH, YB Senator Datuk T. Mohan, Timbalan Pengerusi NIOSH serta Ahli Lembaga Pengarah yang sentiasa menjadi sumber inspirasi dan pendorong kepada warga NIOSH dalam mengharungi segala cabaran pada tahun 2021.

Sesungguhnya kehadiran pandemik COVID-19 pada Mac 2020 di Malaysia, telah banyak mengubah cara kehidupan dan harapan seluruh rakyat Malaysia. Dengan berkat dan usaha serta sokongan semua warga NIOSH, kami telah berjaya mencapai sasaran pendapatan sebanyak 100.4% atau RM66.55 juta pada tahun lalu, disamping mencapai sasaran semua aktiviti yang telah dirancang. Dalam tempoh pandemik ini, cabaran dan halangan yang dihadapi telah menjadikan warga NIOSH lebih tekun dalam usaha menyampaikan perkhidmatan yang terbaik kepada rakyat Malaysia. Atas usaha itu, syabas dan tahniah diucapkan kepada kumpulan pengurusan serta kakitangan NIOSH. Ucapan terima kasih juga dihulurkan kepada rakan-rakan strategik, pelanggan-pelanggan NIOSH atas sokongan yang telah diberikan dalam memastikan NIOSH terus menjadi rakan pilihan bagi keselamatan dan kesihatan pekerjaan.

Sekian, Terima kasih.



**TUAN HAJI AYOP BIN SALLEH**  
**PENGARAH EKSEKUTIF NIOSH**  
*Executive Director*

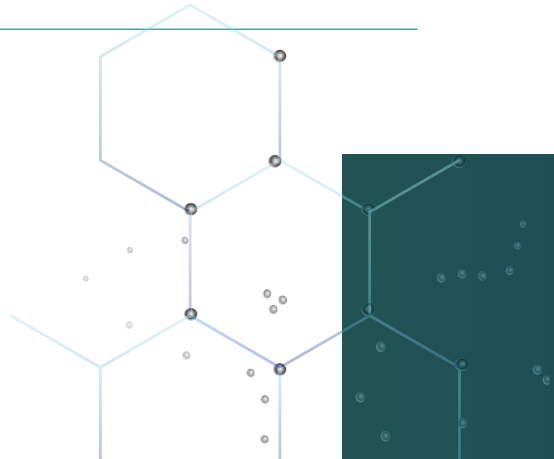
**T**hankfulness be to Allah SWT for the grace given to NIOSH in achieving the Institute's targets for 2021. The highest appreciation and thank you to the Minister of Human Resources and the Ministry of Human Resources for trusting and supporting NIOSH in its effort to ensure occupational safety and health in the workplace is implement for the aspirations of the 'Keluarga Malaysia'.

A special thank you to YB Datuk Wilson Ugak Anak Kumbong, Chairman of NIOSH; YB Senator Datuk T. Mohan, Deputy Chairman of NIOSH; and, Board Members who are at all times a source of inspiration and motivation for NIOSH citizens in overcoming challenges that were faced in 2021.

Indeed, the COVID-19 pandemic which began in March 2020 in Malaysia, has tremendously changed the way of life of and hopes for all Malaysians. With blessings, efforts and support from all at NIOSH, we managed to achieve a revenue target of 100.4% or RM66.55 million last year, in addition to achieving targets in all activities that were planned. During the pandemic, challenges and obstacles made NIOSH citizens work diligently in an effort to deliver the best service to the Malaysian people. For all their sincere efforts and dedication, well done and congratulations to the NIOSH management team and staff.

A thank you is also extended to our strategic partners, clients and customers for their support in having NIOSH as the partner of choice in occupational safety and health in Malaysia.

*Thank you*





# LEMBAGA PENGARAH DAN KUMPULAN PENGURUSAN

*BOARD OF DIRECTORS AND  
THE MANAGEMENT TEAM*

# LEMBAGA PENGARAH NIOSH & SENARAI JAWATANKUASA DAN AHLI

## BOARD OF DIRECTORS & LIST OF COMMITTEES AND MEMBERS

### LEMBAGA PENGARAH BOARD OF DIRECTORS

- ▶ **YB Datuk Wilson Ugak Kumbong**  
Pengerusi / *Chairman*
- ▶ **YB Senator Datuk Mohan a/l Thangarasu**  
Timbalan Pengerusi / *Vice Chairman*
- ▶ **Tuan Haji Ayop bin Salleh**  
Pengarah Eksekutif / *Executive Director*
- ▶ **Mejar Haji Hanif bin Maidin (B)**  
Setiausaha Eksekutif / *Executive Secretary*
- ▶ **YBhg. Datuk Haji Shamsuddin bin Bardan**
- ▶ **YBhg. Datuk Dr. Chong Chee Kheong**
- ▶ **Encik Maniam a/l Arumugam**
- ▶ **Puan Zamzarina binti Abu Bakar**
- ▶ **Encik Matkar bin Siwang**
- ▶ **Encik Thomas Balan Bang**
- ▶ **Prof. Dr. Ismail bin Bahari**
- ▶ **Prof. Madya Dr. Nur Dalilah binti Dahlan**
- ▶ **Prof. Madya Ts. Dr. Shamsul Bahari bin Shamsudin**
- ▶ **Dr. Shamsul Rizal bin Shamsudin**
- ▶ **Dr. Sharudin bin Shari**

### JAWATANKUASA KEWANGAN FINANCE COMMITTEE

- ▶ **Puan Zamzarina bin Abu Bakar**  
(Pengerusi)
- ▶ **YBhg. Datuk Haji Shamsuddin bin Bardan**
- ▶ **YBhg. Datuk Dr. Chong Chee Kheong**
- ▶ **Tuan Haji Ayop bin Salleh**
- ▶ **Mejar Haji Hanif bin Maidin (B)**  
Urus setia
- ▶ **Pn. Norismalina binti Ishak**

### JAWATANKUASA KEAHLIAN MEMBERSHIP COMMITTEE

- ▶ **YBhg. Datuk Dr. Chong Chee Kheong**  
Pengerusi / *Chairman*
- ▶ **Mejar Haji Hanif bin Maidin (B)**
- ▶ **Encik Matkar bin Siwang**
- ▶ **Dr. Sharudin bin Shari**  
Urus setia
- ▶ **Puan Heina Faeza Abdul Wahid**



### JAWATANKUASA PERJAWATAN ESTABLISHMENT COMMITTEE

- ▶ **YBhg. Datuk Haji Shamsuddin bin Bardan**  
Pengerusi / *Chairman*
  - ▶ **Encik Maniam a/l Arumugam**
  - ▶ **Tuan Haji Ayop bin Salleh**
  - ▶ **Mejar Haji Hanif bin Maidin (B)**
  - ▶ **Encik Matkar bin Siwang**
- Urus setia
- ▶ **Pn. Noorliza Idawati binti Mat Nayan**

### JAWATANKUASA PENYELIDIKAN DAN PEMBANGUNAN RESEARCH AND DEVELOPMENT COMMITTEE

- ▶ **Prof. Madya Dr. Nur Dalilah binti Dahlan**  
Pengerusi / *Chairman*
  - ▶ **Prof. Dr. Ismail bin Bahari**
  - ▶ **Tuan Haji Ayop bin Salleh**
  - ▶ **Prof. Madya Ts. Dr. Shamsul Bahari bin Shamsuddin**
- Urus setia
- ▶ **En. Khairunnizam Mustapa**

### JAWATANKUASA PEMBANGUNAN PERNIAGAAN BUSINESS DEVELOPMENT COMMITTEE

- ▶ **Prof. Dr. Ismail bin Bahari**  
Pengerusi / *Chairman*
  - ▶ **YBhg. Datuk Haji Shamsuddin bin Bardan**
  - ▶ **Encik Maniam a/l Arumugam**
  - ▶ **Tuan Haji Ayop bin Salleh**
  - ▶ **Mejar Haji Hanif bin Maidin (B)**
- Urus setia
- ▶ **En. Mohd Hussin bin Abdul Salam**

### JAWATANKUASA AUDIT DALAMAN INTERNAL AUDIT COMMITTEE

- ▶ **YB Senator Datuk Mohan a/l Thangarasu**  
Pengerusi / *Chairman*
  - ▶ **Encik Thomas Balan Bang**
  - ▶ **Dr. Shamsul Rizal bin Shamsudin**
- Ex Officio
- ▶ **Tuan Haji Ayop bin Salleh**
  - ▶ **Mejar Haji Hanif bin Maidin (B)**
- Urus setia
- ▶ **Pn. Salwati binti Abdul Rahman**

### JAWATANKUASA PENCALONAN NOMINATION COMMITTEE

- ▶ **YBhg. Datuk Hj Shamsuddin bin Bardan**  
Pengerusi / *Chairman*
  - ▶ **YBhg. Datuk Dr. Chong Chee Kheong**
  - ▶ **Tuan Haji Ayop bin Salleh**
  - ▶ **Mejar Haji Hanif bin Maidin (B)**
  - ▶ **Encik Matkar bin Siwang**
- Urus setia
- ▶ **Pn. Nurul Nadiah binti Mohd Abdul Rasid**  
(Setiausaha Syarikat)

## PENGURUSAN DAN PAKAR TEKNIKAL MANAGEMENT AND TECHNICAL EXPERTS

### Pengarah Eksekutif

#### *Executive Director*

- Tuan Haji Ayop bin Salleh

### Setiausaha Eksekutif

#### *Executive Secretary*

- Tuan Mejar Haji Hanif bin Maidin (B)

### Pengurus Besar / General Manager

#### *Perundingan, Penyelidikan & Pembangunan Consultation, Research & Development*

- Khairunnizam Mustapa

### Pengurus / Manager

#### *Bahagian Pengurusan Kualiti Quality Management Division*

- Shahir bin Addenan

### Pengurus / Manager

#### *Bahagian Peperiksaan dan Persijilan Examination and Certification Division*

- Siti Faranez binti Harun

### Pengurus / Manager

#### *Bahagian Perniagaan dan Pemasaran Business and Marketing Division*

- Mohd Hussin bin Abd Salam

### Pengurus / Manager

#### *Bahagian Pembangunan Program Programme Development Division*

- Mohamad Redzuan Shah bin Masri

### Ketua / Head

#### *Pusat Kecemerlangan Ergonomik Ergonomic Excellence Centre*

- Ismail bin Abdul Rahman

### Ketua Unit / Head

#### *Unit Audit Dalam Internal Audit Unit*

- Salwati binti Abdul Rahman

### Ketua Unit / Head

#### *Unit Integriti & Tadbir Urus Integrity & Governance Unit*

- Nor Fazidah binti Abu Naim

## Jabatan Korporat *Corporate Department*

### Pengurus / Manager

#### *Bahagian Sumber Manusia Human Resource Division*

- Noorliza Idawati binti Mat Nayan Manager

### Pengurus / Manager

#### *Bahagian Kewangan Finance Division*

- Norismalina binti Ishak Manager

### Pengurus / Manager

#### *Bahagian Penyebaran Maklumat Information Dissemination Division*

- Haji Shahronizam bin Noordin Manager

### Pengurus / Manager

#### *Bahagian Pentadbiran dan Kemudahan Administration and Facilities Division*

- Mohd Nazif bin Mohd Zaidan Manager

### Pengurus / Manager

#### *Bahagian Pengurusan Projek Project Management Division*

- Azmi bin Jamaludin @ Aman Shah Manager

### Pengurus / Manager

#### *Bahagian Teknologi Maklumat Information and Technology Division*

- Mohd Rashidi bin Rohmad Manager





## Jabatan Operasi *Operation Department*

### Pengurus Kanan / *Senior Manager*

Jabatan Pendidikan dan Latihan & Pejabat Wilayah  
*Education and Training Department & Regional Offices*

▲ Saupi Nazri bin Mamat

### Pengurus / *Manager*

Bahagian Pendidikan dan Kompetensi Perundangan  
*Education and Regulatory Competency Division*

▲ Siti Badariah binti Abu Bakar

### Pengurus / *Manager*

Bahagian Kesedaran dan Kemahiran Keselamatan  
*Safety Awareness and Skills Division*

▲ Siti Zainatul Arafah binti Mat Zin

### Pengurus / *Manager*

Bahagian Komunikasi Strategik Latihan  
*Training Strategic Communications Division*

▲ Norazman bin Bakrun

## Pejabat Wilayah *Regional Offices*

### Pengurus / *Manager*

Pantai Timur *East Coast* (Kerteh, Kuantan & Kota Bharu)

▲ Hisyamuddin bin Mohamad

### Pengurus / *Manager*

Utara *Northern* (Penang & Manjung)

▲ Rosliza binti Osman

### Pengurus / *Manager*

Selatan *Southern* (Johor Bahru, Malacca & Pengerang)

▲ Haji Muhammad Zaeem bin Mokhtar

### Pengurus / *Manager*

Sabah (Kota Kinabalu, W.P Labuan, Sandakan & Tawau)

▲ Wan Sarman @ Wan Salman bin Sakan

### Pengurus / *Manager*

Sarawak (Kuching, Bintulu, Miri & Kapit)

▲ Normiza binti Suhaili

## NIOSH Certification Sdn. Bhd.

### Ketua Pegawai Eksekutif / *Chief Executive Officer*

▲ Syamsul Zahrin bin Zainuddin

### Pengurus Kanan Operasi / *Sr. Operation Manager*

▲ Amirhasamy a/l Mahalingam

## Pakar Teknikal *Technical Expert*

### Bahagian Perniagaan dan Pemasaran

*Business and Marketing Division*  
(BMD)

▲ M. Hamzah bin Jamaludin

### Bahagian Pembangunan Program

*Programme Development Division*  
(PDD)

▲ Muazan bin Mohamed

### Jabatan Perundingan, Penyelidikan dan Pembangunan

*Consultation, Research and Development Department* (CRDD)

▲ Haji Fadzil bin Osman

▲ Haji Mohd Esa bin Baruji

▲ Dewililah Sapriah binti Yosof

### Pematuhan Perundangan

*Regulatory Compliance* (RC)

▲ Dr. Muhamad Ariff bin Muhamad Noordin

▲ Nor Mohd Razif bin Noraini

### Penyelesaian KKP

*OSH Solutions* (OS)

▲ Azhar bin Ahmad

### Khidmat nasihat

*Advisory Services* (AS)

▲ Raemy bin Md Zein

▲ Siti Nurani binti Hassan

### Perkhidmatan Teknikal

*Technical Services* (TS)

▲ Mohd Norhafsam bin Maghpor

### Penyelidikan Gunaan

*Applied Research* (AR)

▲ Baderin bin Osman

### Jabatan Pendidikan dan Latihan & Pejabat Wilayah

*Education and Training Department & Regional Offices* (ETD & RO)

▲ Haji Amirrudin bin Abdul Aziz

▲ Yuzainie bin Yusof

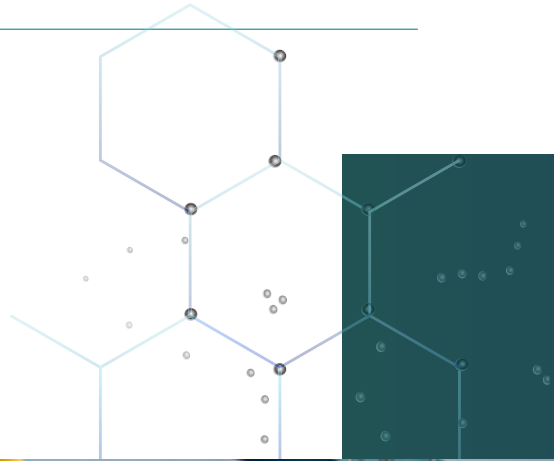
▲ Ruzita binti Mohd Shariff

▲ Haji Muhammad Zaeem bin Mokhtar

▲ Paramesvaran a/l Mariappan

▲ Mohamad Anizan bin Mohammed Amin

▲ Shahrulnizam bin Jamen





# LATIHAN

*TRAINING*



## LATIHAN

Program latihan yang dikendalikan oleh NIOSH telah menerima pengiktirafan dan persijilan daripada Jabatan Keselamatan dan Kesihatan Pekerjaan (JKKP) Malaysia. Disamping itu, persatuan-persatuan industri, pengamal KPP, majikan, komuniti dan pekerja tempatan serta rakan antarabangsa juga mengesah dan menyokong program latihan NIOSH.

Selain daripada memastikan kompetensi KKP bagi majikan dan pekerja yang telah berdaftar dengan NIOSH, program latihan NIOSH juga diperluas kepada eksekutif kanan, ahli jawatankuasa keselamatan dan kesihatan, penyelia keselamatan, pekerja kontraktor umum, ahli akademik dan lain-lain individu yang berkepentingan.

Aktiviti latihan boleh dibahagikan kepada tiga aktiviti utama iaitu pelaksanaan program latihan, pembangunan dan semakan modul latihan, dan pemantauan dan penilaian aktiviti latihan.

### Pelaksanaan Program Latihan

#### Prestasi Aktiviti Latihan

Sehingga Disember 2021 sebanyak 7, 817 program telah berjaya dilaksanakan untuk pelbagai industri di ibu pejabat NIOSH dan cawangan-cawangannya. Jumlah pencapaian yang diperolehi ialah 101%.

**Jadual 1: Jumlah Program Latihan yang dijalankan oleh NIOSH dan Bilangan Peserta bagi tahun 2021**

Bil	Jenis Kursus / Type of Courses	Jumlah 2021 (Sehingga Dis) Total for the Year 2021 (until end Dec)	
		Bilangan Program Total Programmes	Bilangan Peserta Registered Participants
1	Program untuk Pengamal OSH OSH Practitioners Programme	281	4,350
2	Program Persijilan/Kompetensi Competency/Certification Programme	2,162	29,004
3	Program Jurulatih Trainers Programme	70	811
4	Program Pasport Keselamatan NIOSH NIOSH Safety Passport Programme	5,229	94,958
5	Seminar Seminar	75	14,611
<b>Jumlah Keseluruhan Total</b>		<b>7, 817</b>	<b>143,734</b>

## TRAINING

Training programmes conducted by NIOSH are certified, endorsed and recognized by the Department of Occupational Safety and Health (DOSH) Malaysia. Furthermore, industry associations, OSH practitioners, local employers, employees and communities, and international partners endorse and support the training programmes offered by NIOSH. Other than ensuring the competency of implementing OSH by employers and employees who are registered with NIOSH programmes, the institute also offers training to executives, safety and health committee members, safety and health officers, general contract workers, academicians and individuals in senior management positions.

Training activities are divided into three main categories, namely, implementation of training programmes; development and review of training modules; and, monitoring and evaluation of training activities.

### Implementing Training Programmes

#### Performance Levels of Training Activities

For the year 2021 until end December, a total of 7,817 programmes were successfully conducted for a wide range of industries in Malaysia. These trainings were held at the NIOSH headquarters and also at the various branches through the country. These training programmes achieved a high performance level of 101%.

**Table 1: Total Number of Training Programmes conducted and Registered Participants**



## AKTIVITI BAHAGIAN PENDIDIKAN DAN KOMPETENSI PERUNDANGAN (ERCD) BAGI TAHUN 2021

### PELAKSANAAN KURSUS KOMPETENSI PERUNDANGAN SECARA ATAS TALIAN

Bagi tahun 2021, Bahagian Pendidikan dan Kompetensi Perundangan (ERCD) telah melaksanakan Program Kompetensi Perundangan Secara Atas Talian seiring dengan perubahan kaedah pembelajaran diperingkat global dan amalan norma baharu di dalam bidang pendidikan. Di antara program-program yang telah dilaksanakan secara atas talian adalah kursus Pegawai Keselamatan dan Kesihatan (SHO), Penyelia Keselamatan di Tempat Kerja (SSS), Kordinator Keselamatan dan Kesihatan Pekerja (OSH-C), Jururawat Kesihatan Pekerja (OHN) serta Program Pegawai Penambahbaikan Keselamatan dan Kesihatan (SHEP).

Sementara itu, Persatuan Rakan Niaga Strategik Malaysia (PERNISMA) menghantar lebih kurang 300 kontraktor Tenaga Nasional Berhad (TNB) untuk menghadiri kursus Penyelia Keselamatan di Tempat Bekerja (SSS). Kursus ini dikendalikan di kesemua pejabat NIOSH di seluruh Malaysia. Tujuan mengadakan kursus ini adalah untuk menyediakan tenaga mahir dan “Orang Yang Berkompeten” di kalangan kontraktor mengikut syarat yang ditetapkan oleh pihak TNB. Bagi membantu setiap peserta PERNISMA lulus peperiksaan dan bersedia menggalas tanggungjawab sebagai “Orang Yang Kompeten,” pihak NIOSH memperkenalkan program khas iaitu Kelas Persediaan Menjawab Peperiksaan Penyelia Keselamatan di Tempat Bekerja (SSS).

## EDUCATION AND REGULATORY COMPETENCY DEPARTMENT ACTIVITIES FOR THE YEAR 2021

### CONDUCTING OF ONLINE REGULATORY COMPETENCY COURSES

*For the year 2021, the Education and Regulatory Competency Department conducted Regulatory Competency courses online. These courses were held online so as to align with changes occurring in learning methods at a global level, and with new approaches in the education field. Among the courses that were conducted online were: Safety and Health Officer (SHO); Site Safety Supervisor (SSS); Occupational Safety and Health Coordinator (OSH-C); Occupational Health Nurse (OHN); and, Safety and Health Officer Enrichment Programme (SHEP).*

*Meanwhile in 2021, PERNISMA (an association of strategic enterprises), registered approximately 300 contractors from Tenaga Nasional Berhad (TNB) to attend the Site Safety Supervisor (SSS) course. The course was held in all NIOSH branches throughout Malaysia. The purpose was to train the contractors to become highly skilled so as to fulfill TNB's requirement to have competent skilled contractors. In addition, to assist each PERNISMA participant prepare and pass the course's exam, NIOSH introduced a special program - Exam Preparation Class for Site Safety Supervisor Programme.*



Peserta dari PERNISMA menghadiri Kursus Penyelia Keselamatan di Tempat Bekerja (SSS) pada 15 Mac 2021

*Participants from PERNISMA attending a Site Safety Supervisor (SSS) course 15 March 2021*





Kursus Penyelia Keselamatan di Tempat Bekerja (SSS) pada 27 Disember 2021  
*Site Safety Supervisor (SSS) Course for PERNISMA held 27 December 2021*



Lawatan ke tapak bekerja Paramount Property, Greenwoods Salak Perdana, Sepang, Selangor oleh Pegawai Keselamatan dan Kesihatan (SHO) pada 1 Disember 2021

*Visit to Paramount Property work site, Greenwoods Salak Perdana, Sepang, Selangor by Safety and Health Officer (SHO) on December 1, 2021*





Lawatan ke tapak bekerja Sejati Lakeside, Cyberjaya, Selangor oleh Pegawai Keselamatan dan Kesihatan (SHO) pada 24 November 2021

*Site Visit by the Safety and Health Officer (SHO) to Sejati Lakeside, Cyberjaya, Selangor 24 November 2021*

## LAPORAN AKTIVITI BAHAGIAN KESEDARAN KESELAMATAN DAN KEMAHIRAN (SASD) 2021

Sepanjang tahun 2021, Bahagian Kesedaran Keselamatan dan Kemahiran (SASD) di bawah Jabatan Pendidikan dan Latihan NIOSH telah melaksanakan sebanyak 2,149 program. Seramai 44,590 peserta daripada perbagai industri dilatih oleh Bahagian Kesedaran Keselamatan dan Kemahiran (SASD) NIOSH.

Di samping kursus bersemuka, SASD juga telah melaksanakan inisiatif kursus secara dalam talian bagi memenuhi keperluan industri sepanjang tempoh Perintah Kawalan Pergerakan. Selanjutnya, pembelajaran secara dalam talian ini menjadi platform pilihan bagi industri-industri yang menyertai kursus-kursus SASD.

### Program Dalam Talian SASD

Sebanyak 223 program dalam talian dijalankan oleh SASD sepanjang 2021 seperti berikut:

- Program Induksi Pasport Keselamatan NIOSH
- Program Kesedaran KKP
- Program Jurulatih
- Program Kompetensi Kemahiran

## ACTIVITIES REPORT FOR THE SAFETY AWARENESS AND SKILLS DIVISION (SASD) 2021

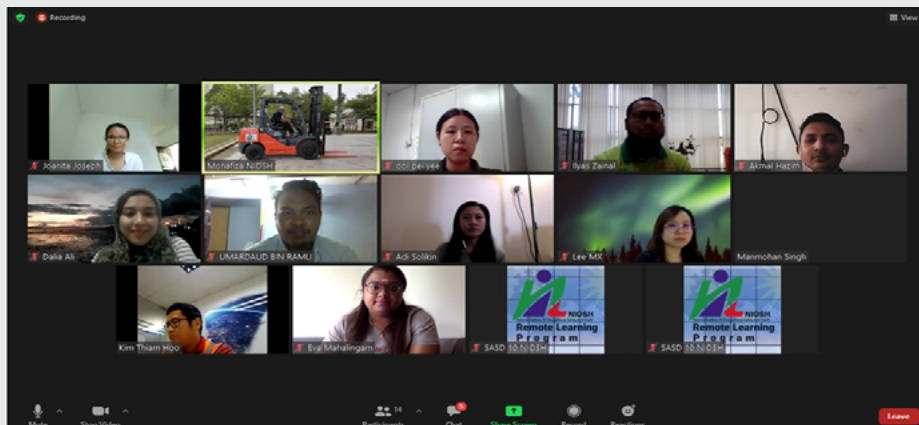
For the year 2021, the Safety Awareness and Skills Division (SASD) under the supervision of the Education and Training Department of NIOSH conducted 2,149 programmes in which, 44, 590 participants from various industries were trained by SASD.

Besides in-person training, SASD also initiated online courses to fulfill the needs of industries during the Movement Control Order period. Eventually, the online method was chosen to be the preferred learning approach by industry participants.

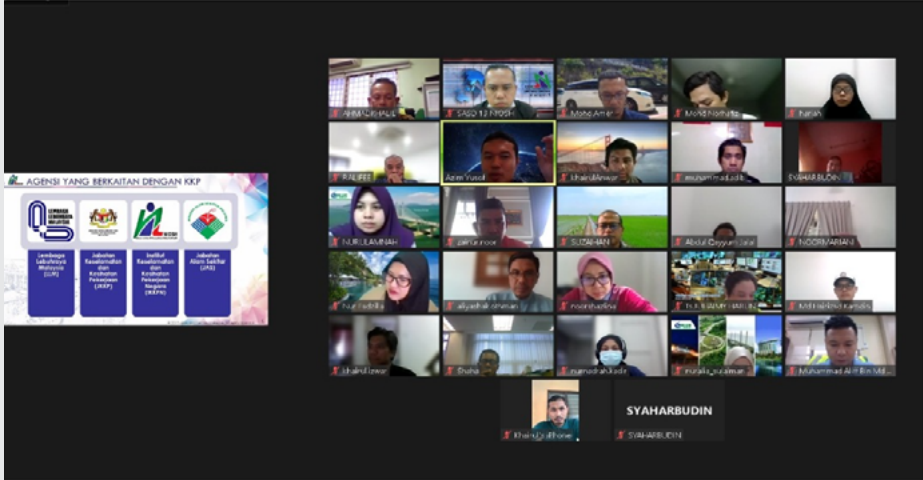
### SASD Online Programmes

A total of 223 online programmes were conducted by SASD throughout the year 2021 as follows:

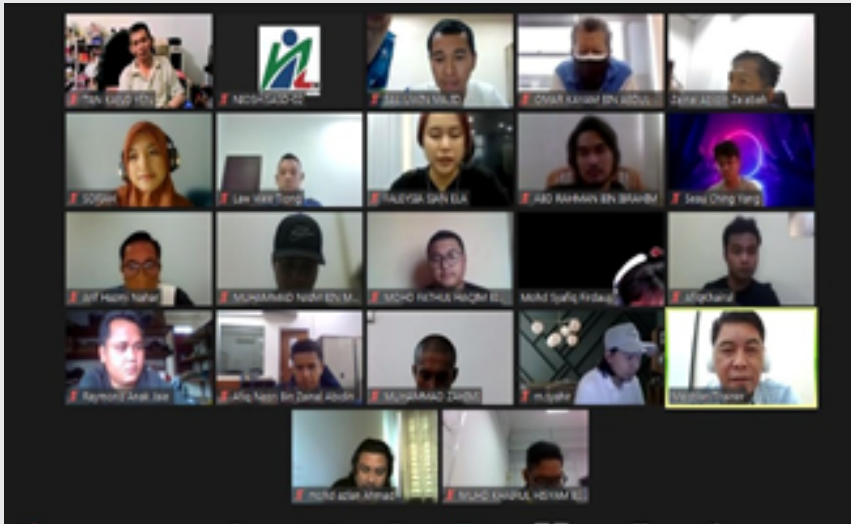
- NIOSH Safety Passport Induction Programme
- OSH Awareness Programme
- Train The Trainers Programme
- Skills Competency Programme



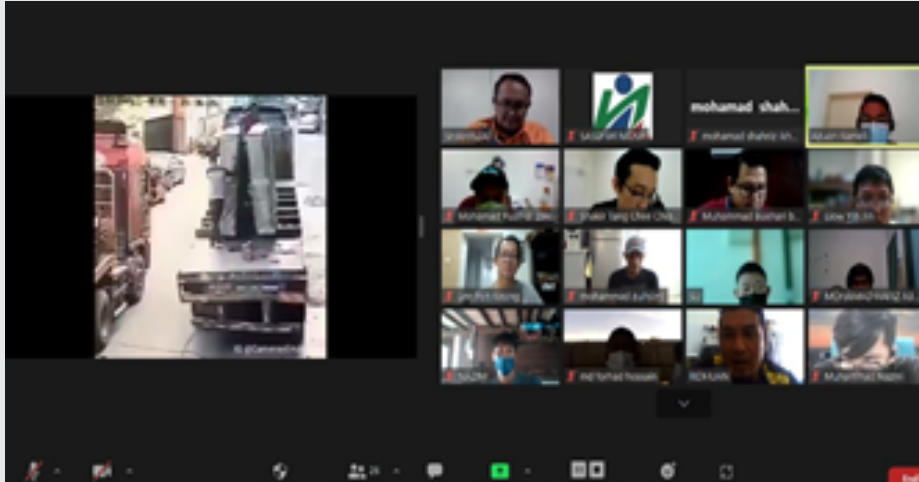
Program Jurulatih Secara Dalam Talian SASD  
SASD Train The Trainer Online Programme



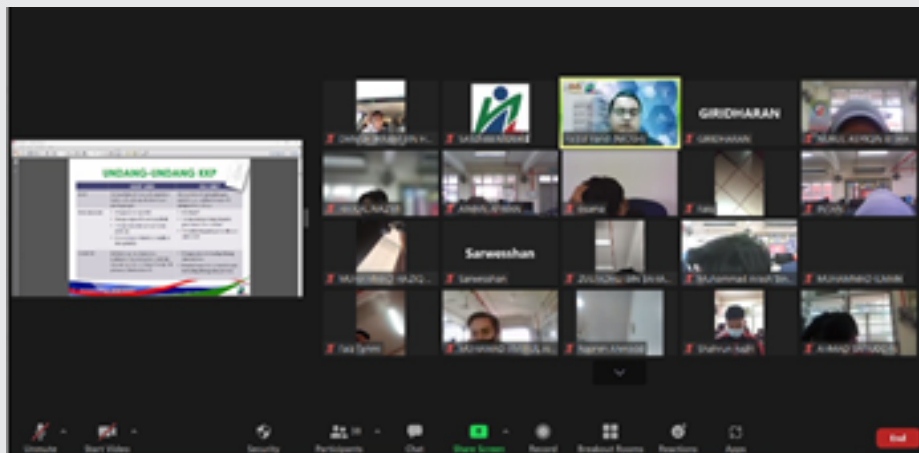
SASD Expressway Operations Safety Passport Online Programme  
Program Pasport Operasi Keselamatan Lebuhraya Dalam Talian SASD



Program Pasport Keselamatan O&G Dalam Talian SASD  
SASD Oil & Gas Safety Passport Programme



Program Pasport Keselamatan Air Selangor Dalam Talian SASD  
*SASD Air Selangor Safety Passport Online Program*



Program Pasport Sistem Keselamatan Kontraktor SASD Dalam Talian  
*SASD Passport for Contractor Safety System Online Programme*

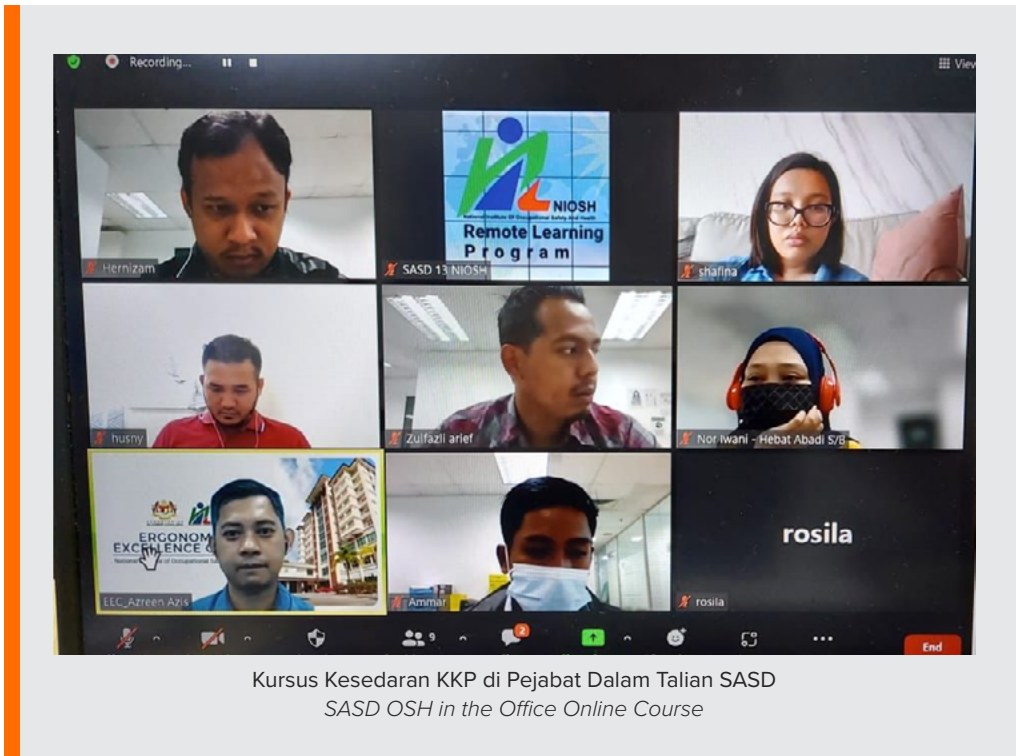




Program Pasport Keselamatan NIOSH-TENAGA Dalam Talian SASD  
*SASD NIOSH-TENAGA Safety Passport Online Programme*



Program Pasport Keselamatan SHELL Retails Dalam Talian SASD  
*SASD SHELL Retails Safety Passport Online Programme*



Kursus Kesedaran KKP di Pejabat Dalam Talian SASD  
SASD OSH in the Office Online Course



## Program Kolaborasi

### Program Persijilan Operasi Sekuriti Keselamatan dan Kesihatan (CSOSH)

Program Persijilan Operasi Sekuriti Keselamatan dan Kesihatan (CSOSH) merupakan program kolaborasi NIOSH bersama industri operasi sekuriti di bawah geran PENJANA. Program ini diadakan dari 14 sehingga 23 Disember 2021 di Kem PLKN Semenyih, Selangor dan melibatkan 153 peserta. di Kem PLKN Semenyih, Selangor. Antara kursus yang dikendalikan oleh SASD adalah:-

- Fundamental OSH For Supervisor,
- Basic OSH First Aid
- Passport Keselamatan (OGSP, NTSP dan NTMSP)

Objektif program ini adalah untuk memperkasa profession pengawal keselamatan melalui latihan kesedaran dan kemahiran Keselamatan dan Kesihatan Perkerjaan (KKP) dalam industri sekuriti.



Program Kolaborasi NSTP - CSOSH  
*NSTP - CSOSH Collaboration Programme*

Program Kerjasama CQ TEC TVET Kolej dijalankan melalui 8 kursus termasuk Induksi Keselamatan, Kompetensi Kemahiran dan Program Jurulatih. Seramai 55 peserta telah dilatih di bawah program kerjasama ini bagi kursus NIOSH-TENAGA Safety Passport (NTSP) sepanjang tahun 2021.

## Collaboration Programmes

### Certified Security Operations for Safety and Health Programme - CSOSH

*The Certified Security Operations for Safety and Health Programme (CSOSH) at NIOSH collaborates with industries related to security operations. This programme is funded by the PENJANA Grant. It was held on December 14 through 23, 2021 at the PLKN Camp in Semenyih, Selangor. A total of 153 participants attended the course. Among other courses managed by SASD are as follows:*

- OSH Fundamentals for Supervisors*
- Basic OSH First Aid*
- NIOSH Safety Passport for OGSP, NTSP and NTMSP*

*The objective of the programme is to strengthen the profession of the safety officer through safety awareness and skills training associated with occupational safety and health (OSH) in the security industry.*



Kursus Asas Pertolongan Cemas KKP - CSOSH  
 dibawah Program Kolaborasi  
*Basis OSH First Aid - CSOSH Course under the  
 Collaboration Programme*

*The CQ TEC TVET College Collaboration Programme is conducted through 8 courses. These courses include Safety Induction, Skills Competency and Train The Trainers programme. Under this collaboration programme, a total of 51 participants were trained in the NIOSH - TENAGA Safety Passport (NTSP) Course during the year 2021.*



Kursus NIOSH - TENAGA Pasport Keselamatan (NTSP) CQ TEC  
*NIOSH - TENAGA Safety Passport (NTSP) CQ TEC Course*

### Induksi Kursus Keselamatan dan Kesihatan Pekerjaan (CSR)

Program Induksi Keselamatan CSR NIOSH adalah diantara 3 petunjuk prestasi utama (KPI) Kementerian Sumber Manusia bagi Pembentangan 50 Hari Pencapaian Aspirasi Keluarga Malaysia. Program ini terbuka kepada kalangan graduan tempatan dan melibatkan kursus-kursus yang disenaraikan dibawah. Sasaran sebanyak 5,000 peserta dirancangan. Jumlah yang berjaya dilatih oleh SASD dan Bahagian Latihan Strateji Komunikasi ialah 1,392 peserta sepanjang Oktober sehingga Disember 2021. Latihan kursus dijalankan secara dalam talian dan bersemuka.

Senarai kursus-kursus adalah seperti berikut:

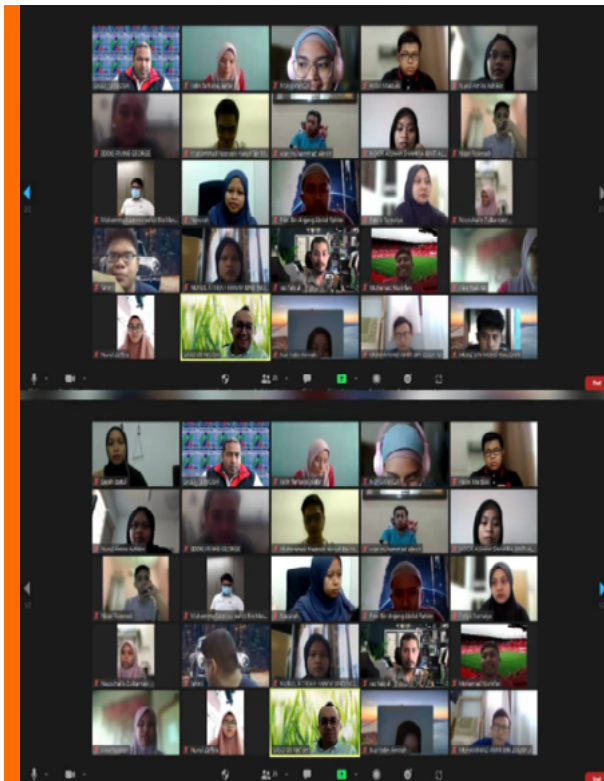
- NIOSH - TENAGA Pasport Keselamatan (NTSP)
- Pasport Keselamatan Minyak dan Gas (OGSP)
- Pasport Sistem Keselamatan Kontraktor (CSPS)
- Pasport Keselamatan Modul Latihan NIOSH (NTMSP)
- Pasport Keselamatan Operasi Lebuhraya (EOSP)

### Occupational Safety and Health Induction Course (CSR)

*The Occupational Safety and Health Induction Course (CSR) is among 3 Key Performance Indicators (KPI) criteria set by the Ministry of Human Resources Malaysia. The purpose was to present 50 Days of Malaysia Family Aspirations Achievement. This program was open to all graduates participating in the list of courses stated below. From this group, SASD and Training Strategic Communication Division (TSCD) targeted to have 5,000 of the graduates join the OSH Induction course. However they succeeded in training 1,392 participants beginning in October through December 2021. The induction course was held online and in-person.*

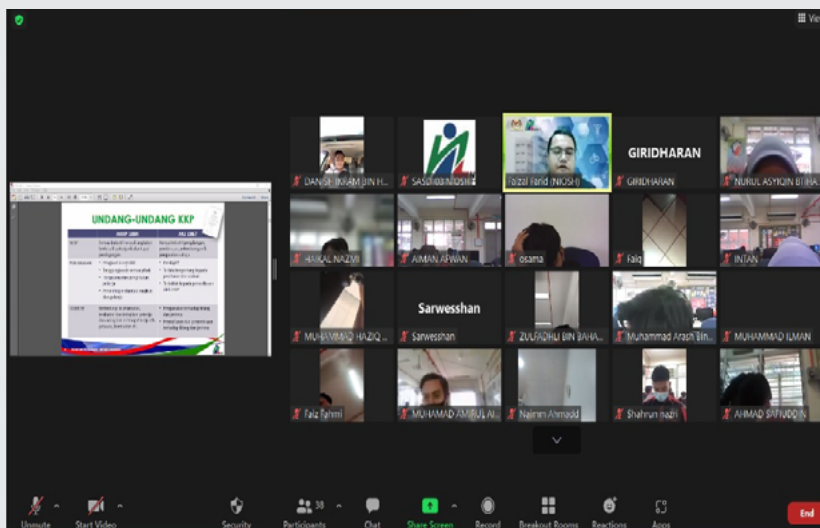
*The list of courses under the Malaysia Family Aspirations Achievement are as follows:*

- NIOSH - TENAGA Safety Passport (NSTP)*
- Oil and Gas Safety Passport (OGSP)*
- Contractor Safety Passport System (CSPS)*
- NIOSH Training Module Safety Passport (NTMSP)*
- Expressway Operations Safety Passport (EOSP)*



Kursus Pasport Keselamatan Operasi Lebuhraya (EOSP) Dalam Talian (CSR)

*Expressway Operations Safety Passport (EOSP) Online Course (CSR)*



Kursus Pasport Sistem Keselamatan Kontraktor (CSPS) Berisiko Tinggi Dalam Talian  
*High Risk Contractor Safety Passport System (CSPS) Online Course (CSR)*

## Program Baru

4.1 E-Idaman Sdn Bhd (EISB) telah menyampaikan hasrat untuk bekerjasama dengan NIOSH bagi mewujudkan sistem pengurusan kontraktor yang lebih cekap dan teratur di syarikatnya melalui program induksi keselamatan NIOSH.

Dua perkhidmatan utama bagi syarikat E-Idaman adalah Pengurusan Sisa Pepejal dan Pembersihan Awam. EISB beroperasi di negeri Perlis dan Kedah. Perkhidmatan syarikat ini meliputi 13 pihak berkuasa tempatan (PBT), lebih daripada 300,000 premis, dan 6,000 pekerja. Operasi EISB juga akan diperluas dengan 3 pihak berkuasa tempatan di negeri Perak.

Program ini masih dalam peringkat pembangunan dan akan dikendalikan oleh NIOSH Pejabat Wilayah Utara apabila diselesaikan pada masa hadapan.

## New Programme

4.1 E-Idaman Sdn Bhd (EISB) extended its wish to collaborate with NIOSH to develop a contractor management system that is more efficient and organized for its company operations by implementing the safety induction programme offered by NIOSH.

The company E-Idaman has two main services: Solid Waster Management and Public Area Cleaning. EISB operates in Perlis and Kedah. Its services and operations cover 13 local state authorities (PBT), 300,000 premises, and 6,000 employees. Furthermore, EISB operations had also expanded its operations to three local authorities in Perak.

This program is currently at its developmental stage, and when completed it will be managed by NIOSH Northern Regional Office.



Mesyuarat Pengenalan Pasport Keselamatan NIOSH kepada E-Idaman Sdn Bhd  
Tarikh : 6 Januari 2021  
Lokasi : Menara NIOSH Bangi

*NIOSH Safety Passport Program Introductory Meeting for E-Idaman Sdn Bhd*  
Date : 6 January 2021  
Location : Menara NIOSH Bangi



Bengkel Pembangunan Modul dan Pasport Keselamatan NIOSH bagi E-Idaman Sdn Bhd  
Tarikh : 30 November - 2 Disember 2021  
Lokasi : Langkawi, Kedah

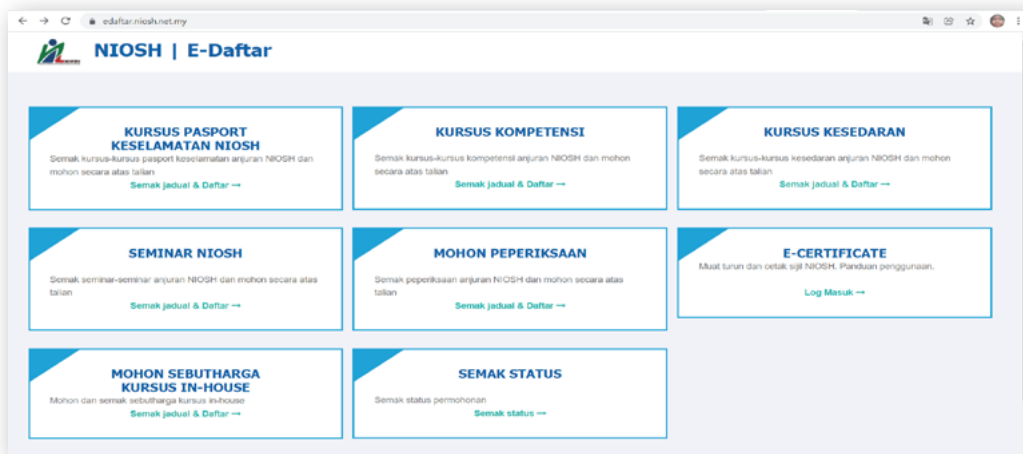
*NIOSH Module Development Workshop and Safety Passport Programme for E-Idaman Sdn Bhd*  
Date : 30 November - 2 December 2021  
Location : Langkawi, Kedah

### Inisiatif penambahbaikan sistem pendaftaran

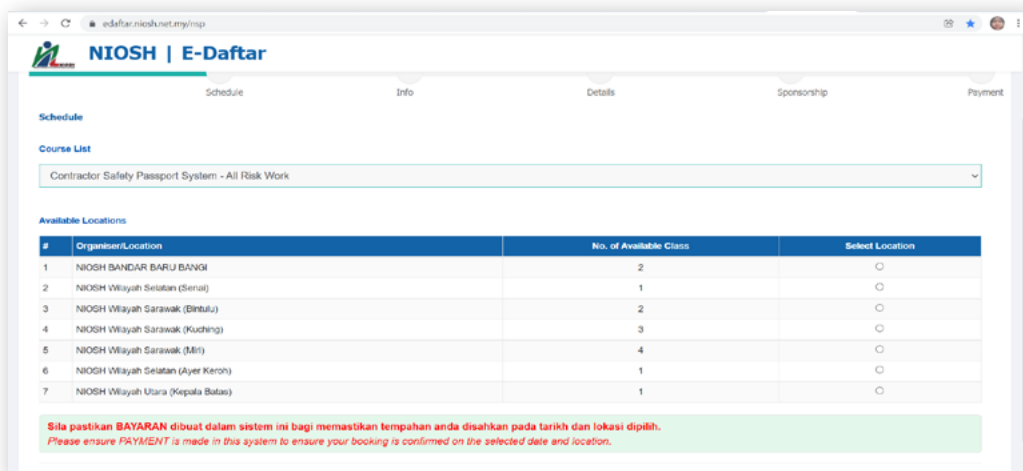
SASD melalui inisiatif penambahbaikan sistem pendaftaran sekarang ini telah menggunakan kaedah 'Book and Pay' dengan kerjasama Bahagian Teknologi Maklumat Kementerian Kawangan Malaysia (ITD). SASD telah berjaya menyediakan sistem E-Daftar pada tahun 2021 bermula dengan pendaftaran passport keselamatan NIOSH. Sistem ini telah diperluaskan kepada semua program NIOSH dan diperhatikan boleh mengoptimumkan operasi dan menambahbaik kualiti perkhidmatan kepada pelanggan.

### Initiative to Upgrade Registration System

SASD collaborated with Information Technology Division (ITD) Ministry of Finance Malaysia to initiate a registration system upgrade by using 'Book and Pay'. The E-Registration system was successfully launched in 2021. To kick-off the initiative, NIOSH Safety Passport was the first programme to use this system. After which, all programmes at NIOSH implemented the E-Registration system. It was observed that this new system optimised operations and improved the quality of services to customers.



E-Daftar 'Book and Pay' program-program NIOSH  
 'Book and Pay' E-Registration of NIOSH programmes



Portal E-Daftar NIOSH  
 NIOSH E-Registration Portal





## LAPORAN PENGANJURAN PROGRAM SEMINAR / WEBINAR TAHUN 2021

Pada Tahun 2021, NIOSH juga telah menjalankan siri seminar pada setiap bulan dengan melibatkan para penceramah dan pakar sebagai tenaga pengajar beserta pembentangan topik Keselamatan dan Kesihatan Pekerjaan (KKP) dari pelbagai tema dan perspektif. Sehubungan itu, kaedah penganjuran seminar secara dalam talian atau dipanggil 'Webinar' juga telah mendapat sambutan penyertaan yang sangat menggalakkan daripada pelanggan NIOSH khususnya yang berlatarbelakang pengamal KKP. Seminar hibrid sambutan Hari KKP Sedunia pada bulan April, dan webinar Vision Zero Series 2: Profil Kemalangan di Malaysia (bersama PERKESO) pada bulan Ogos merupakan program yang berjaya meraih ratusan penyertaan dari seluruh negara.

Pencapaian penganjuran program seminar (secara dalam talian dan bersemuka) bagi tahun 2021 adalah seperti berikut:

Bilangan Program : 71

Bilangan Peserta : 3,701

## ORGANIZING OF SEMINAR/WEBINAR PROGRAMMES 2021 REPORT

*For the year 2021, NIOSH conducted a series of monthly seminars consisting of OSH speakers and experts who stood in as students who presented a variety of OSH topics and perspectives. These seminars that were held as webinars received promising responses and attracted many NIOSH customers, especially from OSH practitioners. A hybrid seminar celebrating World OSH Day in April, and the webinar Vision Zero Series 2: Accident Profile in Malaysia (in collaboration with PERKESO) in August, successfully attracted hundreds of participants from across the country.*

*The achievement of organizing these online and in-person seminar programmes for the year 2021 is as follows:*

*Number of Programmes : 71*

*Number of Participants : 3,701*



Seminar Hibrid Sambutan Hari Sedunia KKP 2021 pada bulan April 2021  
*Hybrid Seminar Celebrating World OSH Day 2021*





Anticipate, prepare and respond to the crisis

**FREE SEMINAR  
 WORLD OSH DAY 2021  
 (INVEST NOW IN RESILIENT OSH SYSTEMS)**

**28 April 2021**

**Jimmy Quinn**  
 President  
 Institution of Occupational Safety And Health (IOSH)

**Prof Madya Dr. Mohd Rafee Baharudin**  
 Director, Occupation Safety & Health, UPH

**Azizie Hj Hamid**  
 Manager, Training Division  
 NIOSH Certification Sdn Bhd

**En. Shairizal Badzri**  
 Head Strategy and Performance, Petronas

**RSVP**  
 SCAN ME

Panel Penceramah and Pakar KKP  
 Panel of OSH Speakers and Experts



Anticipate, prepare and respond to the crisis

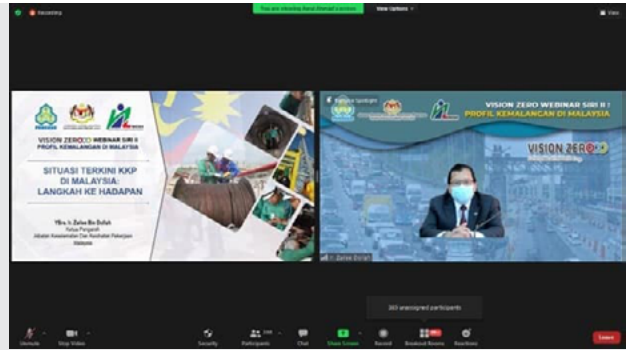
**INVEST NOW  
 IN RESILIENT  
 OSH SYSTEMS**

World Day for Safety and Health at Work  
 28 April 2021

Penyediaan untuk Pelancaran dan Sambutan Hari KKP Sedunia 2021 di NIOSH Bangi  
 Preparations to launch and celebrate World OSH Day 2021 at NIOSH Bangi



YB Datuk Wilson Ugak anak Kumbong signing the guest book as YB attends the World OSH Day at NIOSH Bangi  
 YB Datuk Wilson Ugak anak Kumbong menandatangani buku pelawat pada sambutan Hari KKP Sedunia di NIOSH Bangi



Webinar Vision Zero Series 2: Profil Kemalangan di Malaysia (bersama PERKESO) pada bulan Ogos 2021  
 Webinar Vision Zero Series 2: Accident Profiles in Malaysia (in collaboration with PERKESO) August 2021



**WEBINAR KESELAMATAN DAN KESIHATAN PEKERJAAN DI MASJID**

**Pengenalan Pengurusan Kualiti Udara Dalam (IAQ) Bagi Mencegah Jangkitan COVID-19**

Untuk Pendaftaran : <https://edaftar.niosh.net.my/formreg>

Tarikh : 28 Disember 2021  
 Masa : 8.30am - 12.00pm

**YB Senator Tuan Haji Idris Bin Ahmad**  
 Menteri Di Jabatan Perdana Menteri  
 (Hal Ehwal Agama)

**KESELAMATAN DAN KESIHATAN PEKERJAAN DI MASJID**

Seminar 'CSR' (bersama JAKIM) – Keselamatan dan Kesihatan Pekerjaan (KKP) di Masjid Disember 2021

*'CSR' Seminar (in collaboration with JAKIM) - Occupational Safety and Health (OSH) in Mosques December 2021*

**JABATAN/ BAHAGIAN | DEPARTMENT/ DIVISION:**

Bahagian Peperiksaan dan Persijilan  
*Examination and Certification Division*

**INFO AKTIVITI | ACTIVITY INFO:**

Peperiksaan Pegawai Keselamatan dan Kesihatan Pekerjaan (SHO)  
*Occupational Safety and Health Officer (SHO) Examination*

**TARIKH/MASA - TAHUN 2021 | DATE/TIME - YEAR 2021:**

20-26 Januari 2021 / 22-25 Februari 2021 / 05-08 April 2021 / 07-08 April 2021 / 28 Jun-01 Julai 2021 / 02-05 Ogos 2021 / 04-07 Oktober 2021 / 22-25 November 2021 / 29-30 November 2021

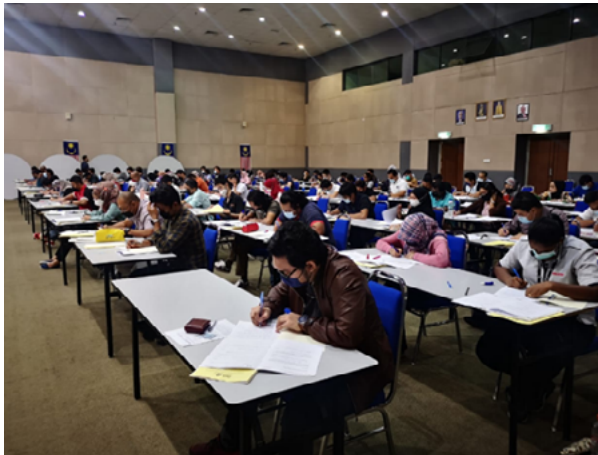
*20-26 January/ 22-25 February/ 05-08 April/ 07-08 April/ 28 June-01 July/ 02-05 August/ 04-07 October/ 22-25 November/ 29-30 November*

**TEMPAT | PLACE :**

Bandar Baru Bangi, Johor, Melaka, Penang, Kuantan, Kota Bahru, Kertih, Kuching, Kota Kinabalu, Sandakan, Bintulu, Tawau dan Miri.

Peperiksaan Pegawai Keselamatan dan Kesihatan Pekerjaan (SHO) telah dijadualkan sebanyak 7 kali setahun dan 3 kali peperiksaan bagi calon tertangguh berikutan PKP akibat pandemik Covid-19. Seramai 3,813 orang calon telah menduduki peperiksaan bertulis dan pembentangan bagi mendapatkan sijil kelayakan SHO.

*Safety and Health Officer examinations (SHO) were scheduled 7 times in the year and 3 times rescheduled due to the movement control order (MCO) during the pandemic period. A total of 3,813 candidates sat for the written and oral examinations to receive the SHO qualification certification.*



**JABATAN/ BAHAGIAN | DEPARTMENT/ DIVISION :**

Bahagian Peperiksaan dan Persijilan  
*Examination and Certification Division*

**INFO AKTIVITI | ACTIVITY INFO :**

Peperiksaan Penyelia Keselamatan Tapak Bina (SSS)  
*Construction Site Safety Supervisor (SSS) Examination*

**TARIKH/MASA - TAHUN 2021 | DATE/TIME - YEAR 2021:**

11-18 Januari 2021 / 08-11 Februari 2021 / 15-18 Mac 2021 / 19-22 April 2021 / 03-05 Mei 2021 / 14-17 Jun 2021  
 12-15 Julai 2021 / 27 Julai 2021 / 16-19 Ogos 2021 / 20-23 September 2021 / 26-28 Oktober 2021 / 08-11 November 2021  
*11-18 January/ 08-11 February/ 15-18 March/ 19-22 April/ 03-05 May/ 14-17 June/ 12-15 July/ 27 July/ 16-19 August/ 20-23  
 September/ 26-28 October/ 08-11 November*

**TEMPAT | PLACE :**

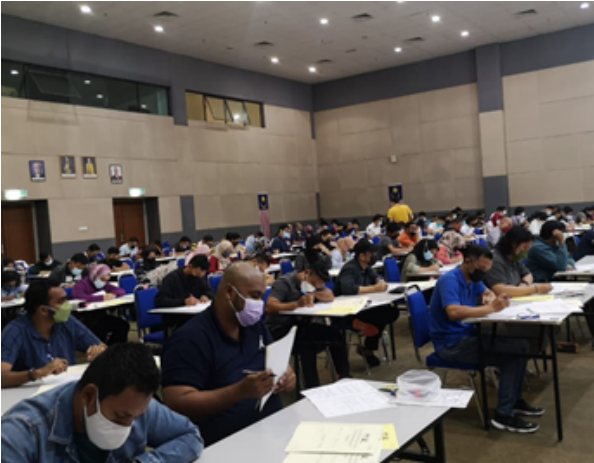
Bandar Baru Bangi, Johor, Melaka, Penang, Manjung, Kuantan, Kota Bahru, Kertih, Kuching, Kota Kinabalu, Sandakan, Bintulu dan Miri.

Peperiksaan Penyelia Keselamatan Tapak Bina (SSS) telah dijalankan sebanyak 12 kali pada tahun 2021 termasuk 2 kali peperiksaan dalaman atau 'inhouse'.

Sejumlah 4,036 orang calon menduduki peperiksaan bertulis dan pembentangan untuk mendapatkan sijil kelayakan SSS.

*The Site Safety Supervisor (SSS) examination for construction sites was conducted 12 times in 2021 including 2 internal or inhouse examinations.*

*A total of 4,036 candidates sat for the written and oral examinations to obtain the SSS certificate of eligibility.*

**JABATAN/ BAHAGIAN | DEPARTMENT/ DIVISION :**

Bahagian Peperiksaan dan Persijilan  
*Examination and Certification Division*

**INFO AKTIVITI | ACTIVITY INFO :**

Peperiksaan Doktor Kesihatan Pekerjaan (OHD)  
*Occupational Health Doctor (OHD) Examination*

**TARIKH/MASA - TAHUN 2021 | DATE/TIME - YEAR 2021:**

4 Februari 2021 / 18 Mac 2021 / 15 April 2021 / 08 Julai 2021 / 09 September 2021 / 04 Oktober 2021 / 02 Disember 2021  
*4 February 2021/ 18 March 2021/ 15 April 2021/ 08 July 2021/ 09 September 2021/ 04 October 2021/ 02 December 2021*

**TEMPAT | PLACE :**

Bandar Baru Bangi, Johor, Pulau Pinang, Kota Kinabalu dan Kerteh

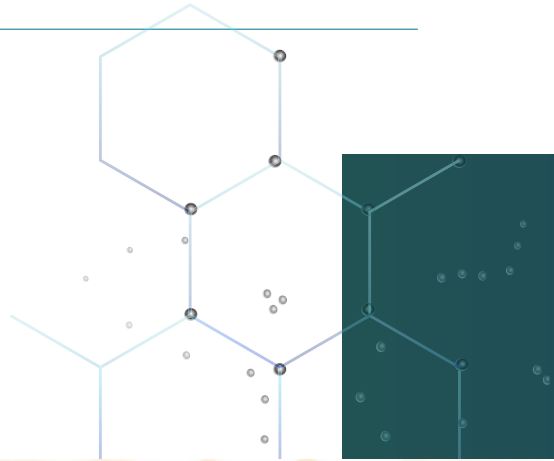
Peperiksaan Doktor Kesihatan Pekerjaan (OHD) telah dijalankan sebanyak 5 kali pada tahun 2021 dan 2 kali peperiksaan ditangguhkan berikutan perintah kawalan pergerakan (PKP) akibat pandemik Covid-19.

Seramai 409 orang calon telah menduduki peperiksaan bertulis dan tugasan tempat kerja.

*The Occupational Health Doctor (OHD) examination was conducted 5 times in 2021 and was 2 times postponed due to the movement control order (MCO) during the Covid-19 pandemic.*

*A total of 409 candidates sat for the written examination and workplace assignment.*







# **KHIDMAT RUNDINGAN**

*CONSULTANCY  
SERVICES*



## **KHIDMAT RUNDINGAN**

Aktiviti khidmat rundingan merupakan salah satu fungsi utama NIOSH dalam memberikan penyelesaian yang lebih optimum dan praktikal terhadap isu keselamatan dan kesihatan pekerjaan (KKP) di tempat kerja apa jua industri seperti yang termaktub di dalam objektif penubuhan NIOSH.

Jabatan Perundingan, Penyelidikan dan Pembangunan (CRDD) NIOSH beroperasi sejak 2008 bagi menjalankan salah satu aktiviti teras iaitu aktiviti khidmat rundingan berkaitan dengan keselamatan dan kesihatan pekerjaan (KKP) industri-industri di Malaysia dengan tujuan penambahbaikan KKP di tempat bekerja. Berikut adalah kategori khidmat rundingan yang disediakan:

- Pematuhan Perundangan – Khidmat rundingan berkaitan pematuhan perundangan oleh pihak majikan dalam memastikan keselamatan dan kesihatan di tempat kerja berdasarkan Akta Keselamatan dan Kesihatan Pekerjaan (AKKP) 1994.
- Khidmat Nasihat (Advisory Services) – Khidmat rundingan berkaitan pelaksanaan aktiviti-aktiviti dalam menyediakan tempat kerja yang selamat dan sihat mengikut keperluan sesuatu organisasi.
- Perkhidmatan Teknikal – Khidmat rundingan berkaitan analisis dan ujian dalam menyediakan pembuktian saintifik bagi sampel- sampel yang dihantar ke makmal OSHECT NIOSH.
- Penyelesaian KKP – Khidmat rundingan berkaitan pembangunan sistem pengurusan dan pemantauan status prestasi keselamatan dan kesihatan pekerjaan.

Perkhidmatan rundingan yang disediakan ini selaras dengan misi NIOSH dalam membantu industri melaksanakan KKP di tempat kerja. Dengan menyediakan lebih daripada 50 jenis perkhidmatan, aktiviti khidmat rundingan KKP di NIOSH dikategorikan seperti Rajah 1 di mukasurat yang berikut.

## **CONSULTANCY SERVICES**

*Consultancy activities is one of the main functions of NIOSH in providing optimal and practical solutions for occupational safety and health (OSH) issues in any given industry in Malaysia as stated in the establishment objectives of NIOSH.*

*The Department of Consulting, Research and Development (CRDD) has been operating since 2008. It has carried out core activities of the Institute namely, consulting services related to the improvement of OSH measures in the workplace among local industries. Following are the categories of consulting services provided by NIOSH:*

- *Regulatory Compliance - Consulting services related to legal compliance by employers in ensuring safety and health at work based on the Occupational Safety and Health Act (AKKP) 1994.*
- *Advisory Services – Consulting services related to the implementation of activities in providing a safe and healthy workplace according to the needs of an organisation.*
- *Technical Services – Consulting services related to analysis and testing that provide scientific evidence for samples sent to NIOSH OSHECT laboratories.*
- *OSH Solutions – Consulting services related to management system development and monitoring the status of occupational safety and health performance.*

*The consultancy services are aligned with the mission of NIOSH in assisting the local industries to implement OSH in the workplace. By providing more than 50 types of services, the OSH consultancy services are categorised as shown in Figure 1 in the following page.*



**Kategori Khidmat Rundingan NIOSH.**  
*NIOSH Consulting Services Categories.*

## PEMATUHAN PERUNDANGAN (RC)

**Aktiviti Pematuhan Perundangan yang dijalankan untuk membantu majikan menyelesaikan masalah di tempat kerja dan menyediakan laporan perundangan berdasarkan kepada pematuhan terhadap Peraturan Keselamatan dan Kesihatan Pekerjaan.**

Chemical Health Risk Assessment (CHRA)  
 Noise Risk Assessment (NRA)  
 Audiometric Testing Analysis (ATA)    Medical Surveillance (MS)  
 Chemical Exposure Monitoring (CEM)    Indoor Air Quality (IAQ)  
 Inspection And Testing Of local Exhaust Ventilation System (LEV)

FACTORIES AND MACHINERY ACT with REGULATIONS

## PENYELESAIAN KKP (OS)

Confined Space Risk Assessment (CSRA)  
 OSH Management System (OSHMS)  
 Ergonomic Risk Assessment (ERA)  
 Safety Audit (SA)  
 Baseline Assessment Study (BAS)  
 Job Hazard Analysis (JHA) / HIRARC  
 Behavior Base Safety (BBS)

**Aktiviti yang dijalankan untuk membantu majikan menyelesaikan masalah di tempat kerja dan menyediakan laporan penyelesaian KKP untuk penambahbaikan tempat kerja.**

OS

INSTITUT KESELAMATAN & KESEHATAN PEKERJAAN NEGARA  
 NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY & HEALTH  
 www.niosh.com.my





## KHIDMAT NASIHAT KKP (AS)



Aktiviti perkhidmatan perundingan yang dijalankan untuk membantu majikan menyelesaikan masalah KKP di tempat kerja.



TOTAL WELLNESS HEALTH PROMOTION (TWHP)



HIRARC



CUSTOMIZE TRAINING

INSTITUT KESELAMATAN & KESEHATAN PEKERJAAN NEGARA  
NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY & HEALTH  
[www.niosh.com.my](http://www.niosh.com.my)



## PERKHIDMATAN TEKNIKAL (TS)



Aktiviti yang dijalankan untuk menganalisis sampel dalam dan luaran untuk parameter yang telah diakreditasi.



- Menjalankan analisis terhadap sampel alam sekitar, biokimia dan mikrobiologi
- Membangunkan Kaedah Ujian dan Pengesahan (Validasi) Ujian
- Makmal Analisis Kebersihan Industri (IAI) - contohnya: Mikrobiologi, Kimia

INSTITUT KESELAMATAN & KESEHATAN PEKERJAAN NEGARA  
NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY & HEALTH  
[www.niosh.com.my](http://www.niosh.com.my)



Pencapaian aktiviti khidmat rundingan berdasarkan kepada kategori dan jumlah sampel analisis makmal yang dicapai bagi tahun 2021 ditunjukkan di Rajah 2. Pencapaian pada tahun 2021 telah mencapai sasaran sebanyak 87% daripada yang disasarkan iaitu 794 projek berbanding dengan sasaran sebanyak 910 projek. Penyelesaian KKP mencatatkan pencapaian tertinggi iaitu 221% diikuti oleh Khidmat Nasihat KKP dan Pematuhan Perundangan KKP. Di samping itu, dengan pensijilan sistem kualiti makmal (ISO 17025) dan kejayaan mendapat pengiktirafan sebagai makmal cemerlang, NIOSH juga telah menerima banyak sampel kajian di seluruh negara bagi menganalisis kandungan asbestos dan pelarut organik. Tambahan itu, sampel pelitup muka yang dikumpul telah mencatatkan peningkatan pada tahun ini. Oleh itu, jumlah sampel juga telah meningkat daripada yang disasarkan (133%) iaitu 10,259 sampel berbanding 7,700 sampel yang disasarkan.

*The achievement of consulting services activities based on its categories, and the total number of laboratory analysed samples for 2021 can be referred to in Figure 2. Based on 910 projects targeted by the department, 794 projects were carried out amounting to 87%. OSH Solutions recorded the highest achievement of 221% followed by OSH Advisory Services and OSH Regulatory Compliance. Furthermore, having been certified with Quality Laboratory System (ISO 17025), and awarded the Laboratory Excellence achievement, NIOSH was able to procure numerous samples from around the country to be tested for asbestos and organic solvents. In addition, collecting of facemask for testing also increased this year. A total of 10,259 samples were tested passed the target of 7,700 samples, a rise of 133% in sampling analysis.*

*Consultancy Services Activities (CRDD) year ending 2021*

Aktiviti Khidmat Rundingan (CRDD) tahun berakhir 2021

No	Kategori Category	Sasaran (Projek) Target (Project)	Projek Diselesaikan Project Completed						Jumlah Diselesaikan Total Completed
			(HQ)	(EC-JBU)	(EC-KTH)	(NRO)	(SBRO)	(SWRO)	
1	Pematuhan Perundangan Regulatory Compliance (RC)	117	96	4	9	1	5	4	119 102%
2	Penyelesaian KKP OSH Solution (OS)	33	67	0	3	2	1	0	73 221%
3	Perkhidmatan Teknikal (TS) Technical Services (TS)	715 Projek/Projects	544	5	-	-	-	-	549 77%
		7,700 sampel/ samples	10,221	38	-	-	-	-	10,259 133%
4	Khidmat Nasihat Advisory Services (AS)	44	28	11	9	1	0	3	52 118%
5	Penyelidikan Kontrak Contract Research (CR)	1	1	-	-	-	-	-	1 100%
<b>Jumlah Total</b>		910 (7,700 sampel/ samples)	736 (9,104 sampel/ samples)	20 (38 sampel/ samples)	21	4	6	7	87% 794 Projek/ Projects (10,259 sampel/ samples)



\*\*Bilangan aktiviti mengikut kategori khidmat rundingan dan konsultasi NIOSH yang beroperasi dan telah dijalankan di Ibu Pejabat NIOSH Bangi, serta cawangan NIOSH di Pusat Kecemerlangan Ergonomik (EEC) bagi Pejabat Wilayah Selatan (Johor Bahru, Melaka dan Pengerang), NIOSH Wilayah Pantai Timur (Kerteh), NIOSH Wilayah Utara (Penang), NIOSH Wilayah Sabah dan juga Sarawak.

\*\*Total count of consultancy services according to consultancy services in operation and completed at NIOSH Headquarters in Bandar Baru Bangi including, NIOSH Ergonomic Excellence Centre for Southern Regional Office (Johor Bahru, Melaka and Pengerang), East Coast Regional Office (Kerteh), Northern Regional Office (Penang) and, Sabah and Sarawak Regional Offices.



## Bolehkah kami memenuhi penawaran dan permintaan industri dengan kapasiti pekerja semasa?

*Can we fulfill the demand from the industry with the current employee capacity?*

### Projek Khidmat Rundingan bagi Pematuhan Perundangan (RC) :

- i. Kualiti Udara Dalam (IQA)
- ii. Penilaian Risiko Bunyi (NRA)
- iii. Penilaian dan Pengujian Sistem Pengudaraan Ekzos Dalam (LEV)
- iv. Penafsiran Risiko Bahan Kimia Atas Kesihatan (CHRA)
- v. Pengawasan Perubatan (MS)
- vi. Pemantauan Pendedahan Kepada Bahan Kimia (CEM)

Projek pematuhan perundangan (RC) telah dijalankan oleh NIOSH bersama dengan pelbagai pihak syarikat dan agensi serta melibatkan Pakar Teknikal dan Orang Yang Kompeten (OYK) NIOSH. Projek-projek ini berlangsung sepanjang tahun 2021.

### Regulatory Compliance (RC) - for Consultancy Services Project:

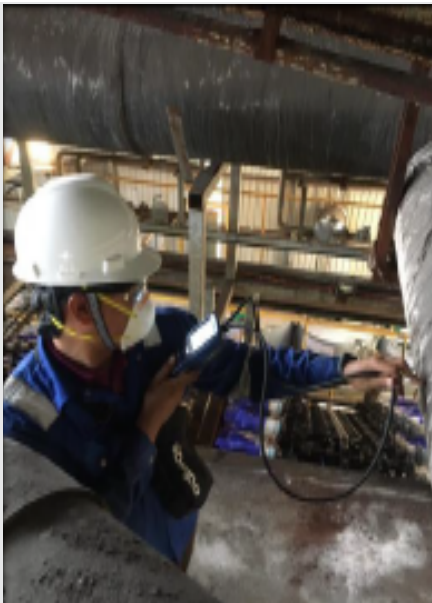
- i. Indoor Air Quality (IAQ)
- ii. Noise Risk Assessment (NRA)
- iii. Inspection and Testing of Local Exhaust Ventilation System (LEV)
- iv. Chemical Health Risk Assessment (CHRA)
- v. Medical Surveillance (MS)
- vi. Chemical Exposure Monitoring (CEM)

The Regulatory Compliance (RC) project was conducted by NIOSH with various companies and agencies. It also involved NIOSH Technical Services, and Competent Persons. These projects took place during the year 2021.



Pemantauan Pendedahan Kepada Bahan Kimia (CEM) dijalankan keatas pekerja penyelenggaraan POS Aviation Sdn Bhd di KLIA Sepang.

*Chemical Evaluation Monitoring being conducted on the maintenance team of POS Aviation Sdn Bhd at KLIA Sepang.*



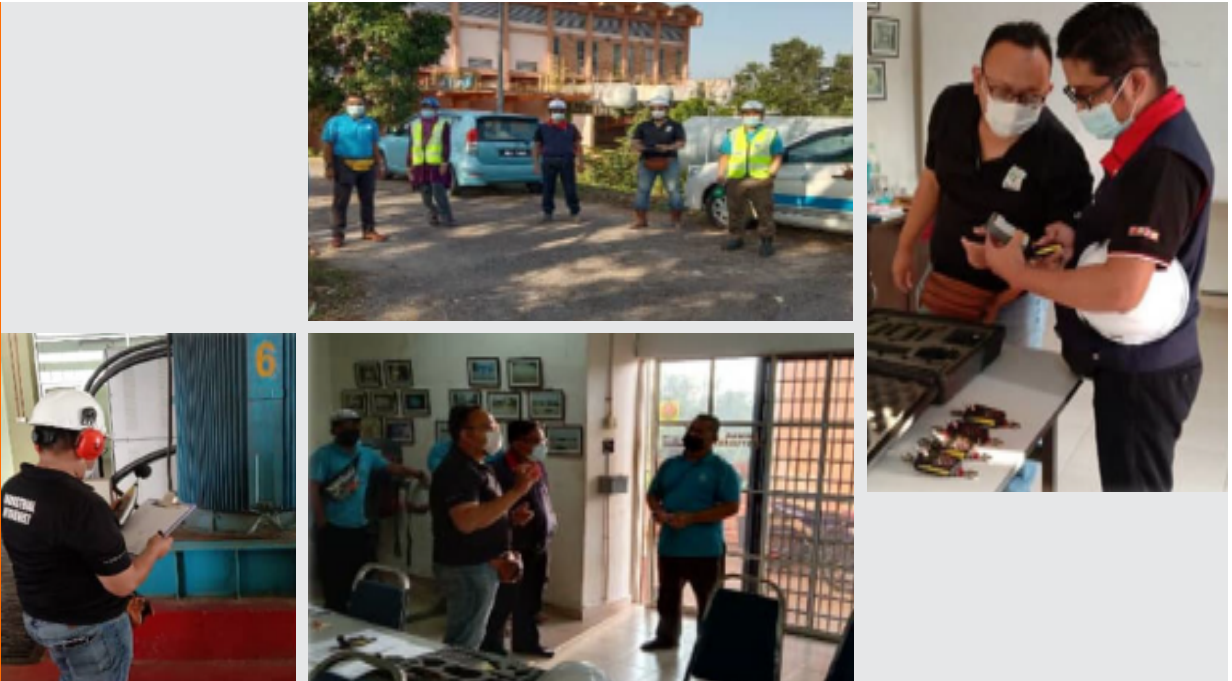
Aktiviti pemeriksaan pengudaraan ekzos dalaman (LEV) di Factory 22 Top Glove melibatkan 16 cawangan dan 2 penyaluran utama.

*Inspection and Testing of Local Exhaust Ventilation System (LEV) at Factory 22 Top Glove involving 16 ductworks and 2 main ducts.*



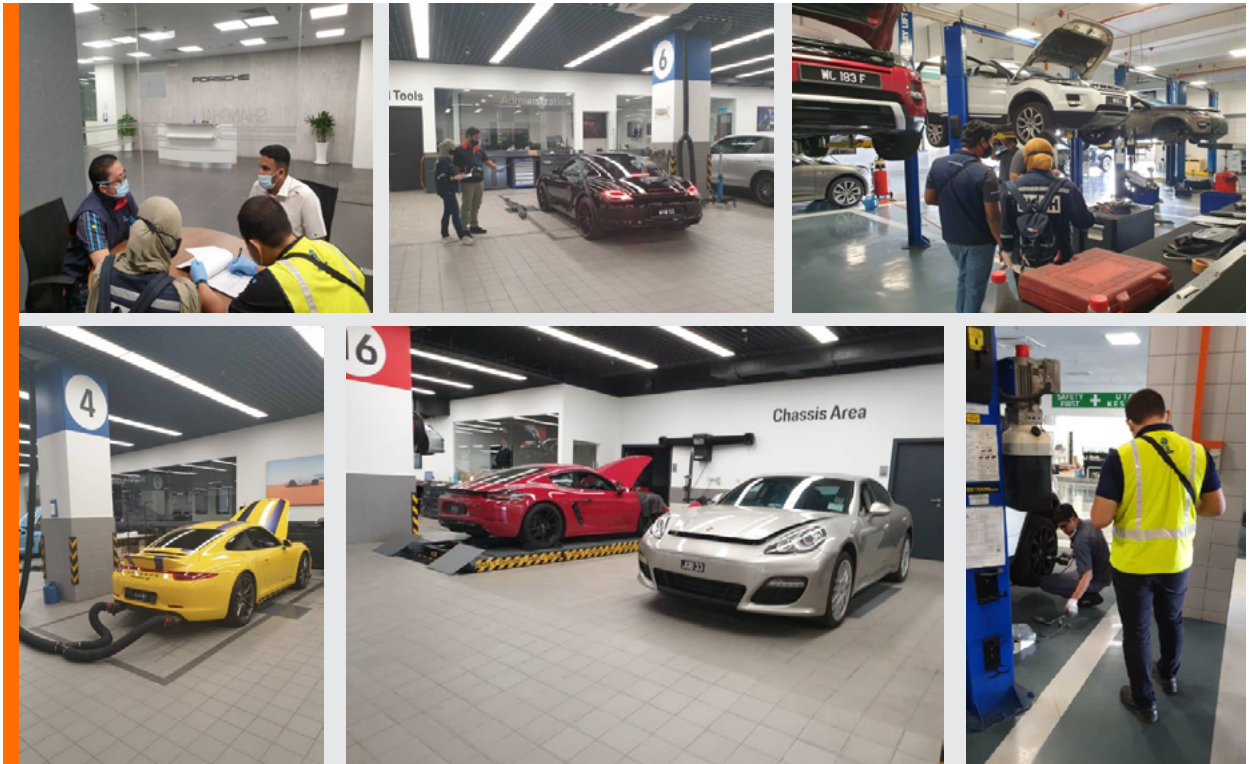


Pembentangan Penafsiran Bahan Kimia Atas Risiko Kesihatan (CHRA) kepada wakil Alam Flora Depot Subang dan Sime Darby Auto Connexion (SDAC) Ford Petaling Jaya  
*Presenting the Chemical Health Risk Assessment (CHRA) to representatives from Alam Flora Depot Subang and Sime Darby Auto Connexion (SDAC) Ford Petaling Jaya.*



Program Penilai Risiko Bunyi (NRA) di bawah kendalian Bahagian Konsultansi dan Penyelidikan (CRD) Kuantan bersama Pejabat Wilayah Pantai Timur Kuantan diadakan di Rumah Pam Air Sungai Kobat Kuantan (Pahang) yang dimiliki oleh Syarikat Pengurusan Air Pahang (PAIP).  
*Noise Risk Assessor Programme by NIOSH Consultancy and Research Division in Kuantan and the East Coast Regional Office in Kuantan held at the Water Pump Facility Sungai Kobat Kuantan (Pahang) owned by Pahang Water Management (PAIP).*





Penilaian Risiko Bunyi dikendalikan di Pusat Penyenggaraan Kereta Mewah: alatan tangan pneumatik, lif hidraulik, kompresor, alat pengisaran, pistol peniup udara dan ujian kereta.

*Noise Risk Assessment conducted at a Service Centre for Luxury Cars: pneumatic hand tools, hydraulic lift, compressor, grinding tools, air gun blower, and car testing.*



Mesyuarat bagi membincangkan pelaksanaan Kualiti Udara Dalam (IAQ) di fasiliti-fasiliti Kementerian Kesihatan Malaysia (KKM)

*Meeting to discuss the implementation of Internal Air Quality (IAQ) in facilities of the Ministry of Health.*



Pembentangan Laporan Pengawasan Perubatan San Miguel Yamamura Printing & Packaging Shah Alam  
*Medical Surveillance Report Presentation San Miguel Yamamura Printing & Packaging Shah Alam*

### Penaksiran Risiko Bahan Kimia Atas Kesihatan (CHRA)

Projek pematuan perundangan Penafsiran Risiko Bahan Kimia Atas Kesihatan (CHRA) telah dijalankan oleh NIOSH bersama pihak Makmal Keselamatan dan Kualiti Makanan (MKKM). Projek ini melibatkan Pakar Teknikal NIOSH dan Orang Yang Kompeten (OYK) NIOSH dilangsungkan sepanjang tahun 2021.

Projek pemantauan pendedahan bahan kimia ini melibatkan MKKM di 5 cawangan negara iaitu MKKM Selangor, MKKM Sarawak, MKKM Pulau Pinang, MKKM Kedah dan MKKM Perlis. Skop projek meliputi pemantauan pendedahan bahan kimia dengan menggunakan pam persampelan dan alat pengumpulan untuk mengukur tahap pendedahan. Hasil ukurannya dibandingkan dengan had pendedahan seperti yang termaktub dalam Jadual 1 Peraturan-peraturan Keselamatan dan Kesihatan Pekerjaan 2000 (Penggunaan dan Standard Pendedahan Bahan Kimia Berbahaya Kepada Kesihatan). Projek ini dilaksanakan oleh Juruteknik Higien 1 NIOSH yang berdaftar dengan Jabatan Keselamatan dan Kesihatan Pekerjaan (DOSH) dan dibantu oleh pegawai-pegawai yang terlatih serta yang mahir.

### Chemical Health Risk Assessment (CHRA)

*The regulatory compliance project for Chemical Health Risk Assessment (CHRA) was conducted by NIOSH in collaboration with Laboratory for Safety and Food Quality authorities. This project involved NIOSH Technical Experts and NIOSH Competence Persons was carried through 2021.*

*In addition, this project which monitored chemical exposure involved 5 branches of the Laboratory for Safety and Food Quality namely in the states of Selangor, Sarawak, Pulau Pinang, Kedah and Perlis. The project scope covers monitoring chemical exposure by using a sampling pump and a collection tool that would measure the level of exposure and then, compared with the threshold level as stated in Table 1 Occupational Safety and Health Regulations 2000 (Utilization and Exposure Standards to Hazardous Chemicals on Health). The implementation of this project was carried out by a NIOSH Technician Hygiene 1 registered with the Department of Occupational Safety and Health (DOSH) while being assisted by trained and skilled officers.*



Penaksir Risiko Bahan Kimia Keatas Kesehatan (CHRA) sedang menjalankan penilaian risiko kimia keatas kesehatan di Makmal Keselamatan dan Kualiti Makanan (MKKM).  
*Appraiser for Chemical and Health Risk Assessor (CHRA) conducts a chemical health risk assessment at the Laboratory for Safety and Quality of Food.*



Projek risiko bahan kimia keatas kesehatan (CHRA) dilakukan di Jetson Construction di Kuala Lumpur.  
*A chemical and health risk assessment (CHRA) being conducted at Jetson Construction in Kuala Lumpur.*





6/5/2021 Mesyuarat bersama Institut Latihan Perhutanan Kuala Berang untuk kerjasama latihan.



3/5/2021 Pembentangan Laporan akhir NRA CCC ECRL



**SITE VISIT FOR CHRA PROGRAM**

EEC, SRO  
Noorul Azreen  
Syed Muhammad

**5 May 2021**

**RealStrong**  
Agriculture Solutions

ALL COSMOS INDUSTRIES SDN BHD  
Pasir Gudang, Johor.

Shahrin Tugiman (SHO)

www.rsoel.com.my

Pusat Kecemerlangan Ergonomik (EEC) Johor dan Bahagian Konsultansi dan Penyelidikan (CRD) Kerteh menjalankan aktiviti khidmat rundingan dan kosultansi.

*Ergonomic Excellence Centre (EEC) Johor together with the Consultancy and Research Division Kerteh hold a joint negotiation and consultancy service.*

**Projek Khidmat Rundingan bagi Penyelesaian KKP (OS) :**

- i. Penilaian Risiko Ergonomik (ERA)
- ii. Audit Keselamatan

**Projek Audit Keselamatan untuk Kementerian Belia dan Sukan (KBS) Malaysia**

Projek Audit Keselamatan dan Kesihatan merupakan projek kerjasama dengan Kementerian Belia dan Sukan (KBS). Projek ini melibatkan 14 kem Wawasan Negara di seluruh Malaysia. Elemen-elemen yang terkandung di dalam sesi audit tersebut adalah pemeriksaan dokumentasi keselamatan dan kesihatan pekerja (KKP) bagi pengurusan dan pengusaha kem. Selain itu, elemen dan skop audit juga termasuk pemeriksaan fizikal latihan seperti litar kembara halangan, litar tali rendah, litar tali tinggi dan peralatan tali tinggi. Audit ini berdasarkan kepada keperluan perundangan KKP, garis panduan tempatan dan standard antarabangsa.

**Consultancy Services Project for OSH Solutions (OS):**

- i. Ergonomic Risk Assessment (ERA)
- ii. Safety Audit

**Safety Audit Project for the Ministry of Youth and Sports (KBS) Malaysia**

*Safety Audit Project is a collaboration work with the Ministry of Youth and Sports (KBS) involving 14 Wawasan Negara camps across Malaysia. The audit examines occupational safety and health documentation of the management and operators of each camp. Besides this, the scope of audit includes checking physical exercises done at the obstacle runway circuit course, low rope circuit course, high rope circuit course, and equipment for high rope course. The audit is based on the needs of occupational safety and health (OSH), local guidelines and international standards.*



Penyampaian Laporan dan Cenderahati dari NIOSH kepada En. Asmori, Pengarah Jabatan Belia dan Sukan, Wilayah Persekutuan Kuala Lumpur

*Presentation of Report and Gifts from NIOSH to En. Asmori, Director Department of Youth and Sports, Kuala Lumpur.*

Sesi Audit Keselamatan Fasiliti Panjat Tebing di Kelab Rakan Muda Bukit Kiara, Jabatan Belia dan Sukan (JBS) Kuala Lumpur.

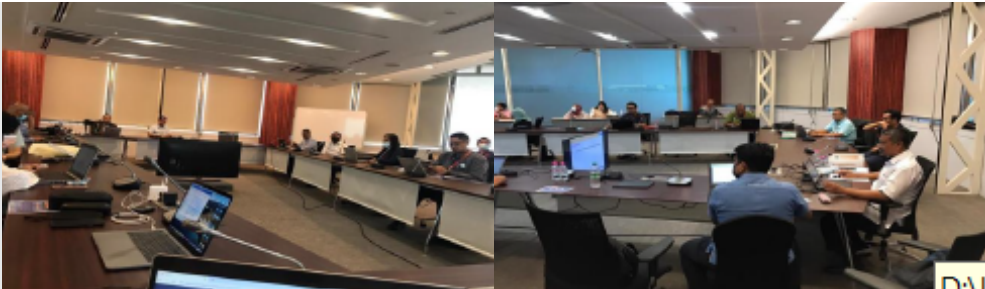
*Safety Audit Session being held at the Bukit Kiara Youth Club wall climbing facility (Department of Youth and Sports) Kuala Lumpur.*







Audit Elemen Latihan Tali Tinggi Kem Wawasan Negara program Sekolah Kepimpinan Masa Hadapan Malaysia (MFLS) di KWN Bukit Sagu, Kuantan.  
*High Rope Course Training Audit at Camp Wawasan Negara - Malaysia Future Leadership School (MFLS) in KWN Bukit Sagu, Kuantan.*



OSHMS ISO 45001:2018 Audit Dalaman - Telekom Malaysia Berhad.  
*OSHMS ISO 45001:2018 Internal Audit for Telekom Malaysia Berhad.*



Mesyuarat NIOSH bersama TNB Genco bagi pengendalian projek garis panduan Eksecutif Sains Kesihatan (HSE).  
*NIOSH meets with TNB Genco to implement guidelines for the Health and Science Executive (HSE).*

**Projek Khidmat Rundingan bagi Khidmat Nasihat KKP (AS): Consultancy project for Occupational Safety and Health (OSH) Advisory Services (AS).**



Perbincangan bersama Pengurus Besar POS Melaka, memperkenalkan Analisis Penambahbaikan Keperluan Tempat Bekerja (WINA), Program Penyesuaian, dan Program Rundingan kakitangan NIOSH Melaka

*A discussion between NIOSH staff and the General Manager of POS Malacca to introduce Workplace Improvement Need Analysis (WINA), Customisation of programmes, and Consultancy Programme.*



Program Kesedaran Asas Keselamatan dan Kesihatan (KKP) di Perbadanan Perpustakaan Awam Negeri Sembilan.

*Occupational Safety and Health (OSH) Fundamental Awareness Programme held at the Negri Sembilan Community Library Corporation.*





Program Analisis Keperluan Penambakan Tempat Bekerja (WINA) di Pusat Kecermelangan Ergonomik (EEC) Pejabat Wilayah Selatan Johor Baharu (SRO-JBU) - Waqaf An-Nur Corporation, Johor.

*Workplace Improvement Needs Analysis Programme held at the Ergonomic Excellence centre (EEC) of the Southern Regional Office Johor Bahru - Waqaf An-Nur Corporation, Johor.*





**WINA**  
**12 APRIL 2021**  
**Palong Cocoa Palm Oil Mill,**  
**Segamat.**

**Kehadiran:**  
 Syed Muhammad  
 Mohamad Fierdaos  
 En Badrul Arifin Balaluddin  
 En Ruznan Ruzki



Program Analisis Keperluan Penambaan Tempat Bekerja (WINA)  
 di Palong Cocoa Palm Oil Sugar Mill, Segamat, Selangor.  
 Workplace Improvement Needs Analysis (WINA) at Palong Cocoa  
 Palm Oil Mill, Segamat, Selangor.



The image shows a Zoom meeting interface. The top portion displays a presentation slide titled "INTRODUCTION" with the NIOSH logo. The slide content is as follows:

## INTRODUCTION

### Job Hazard Analysis (JHA)

- Breaks a jobs or task into specific steps
- Analyses each step for specific hazards
- Develops safe work procedures to eliminate or reduce those hazards

The bottom portion of the image shows a grid of 20 participants in a Zoom meeting. The participants' names and avatars are visible, including Norazlinda, NIOSH - En Mohd Atf, Syazwani Saadon, Nur Zohira, Haniha da Dint, KHA, Nur Hafizah, Nur Azim Yusoff, Suhaima Razali K..., Sekali agi, Azlan JALIL, Asamuddin Abu H..., Aliq Azat K018756, Mohd Faizal Ab Ra..., Noryl Abd Aziz, Noor Jazrin Awang, Hir Yanti, shahrilal 92828, Muhammed Shafiq, Nor Fauziana Abd..., Zaiton optimis i. 006, Shawal Mudia, Haris, Saiful Nizam Azmi..., Zoom FST 2, and Hizam Hussein. The Zoom control bar at the bottom includes options like Mute, Stop Video, Security, Participants, Chat, Share Screen, Pause/Stop Recording, Breakout Rooms, Reactions, and Leave.

Sesi perkongsian bersama NIOSH dan warga Fakulti Sains dan Teknologi (FST) Universiti Kebangsaan (UTM). NIOSH dijemput untuk menyampai slot ringkas berkenaan Analisis Risiko Bahaya.

*Sharing session between NIOSH and the Faculty of Science and Technology (FST) Universiti Kebangsaan Malaysia (UKM). NIOSH was invited to briefly present Job Hazard Analysis.*







# PENYELIDIKAN DAN PEMBANGUNAN

*RESEARCH AND  
DEVELOPMENT*



### **Bidang Pembangunan dan Penyelidikan Keselamatan dan Kesihatan Pekerjaan (KKP) menjadi Teras NIOSH**

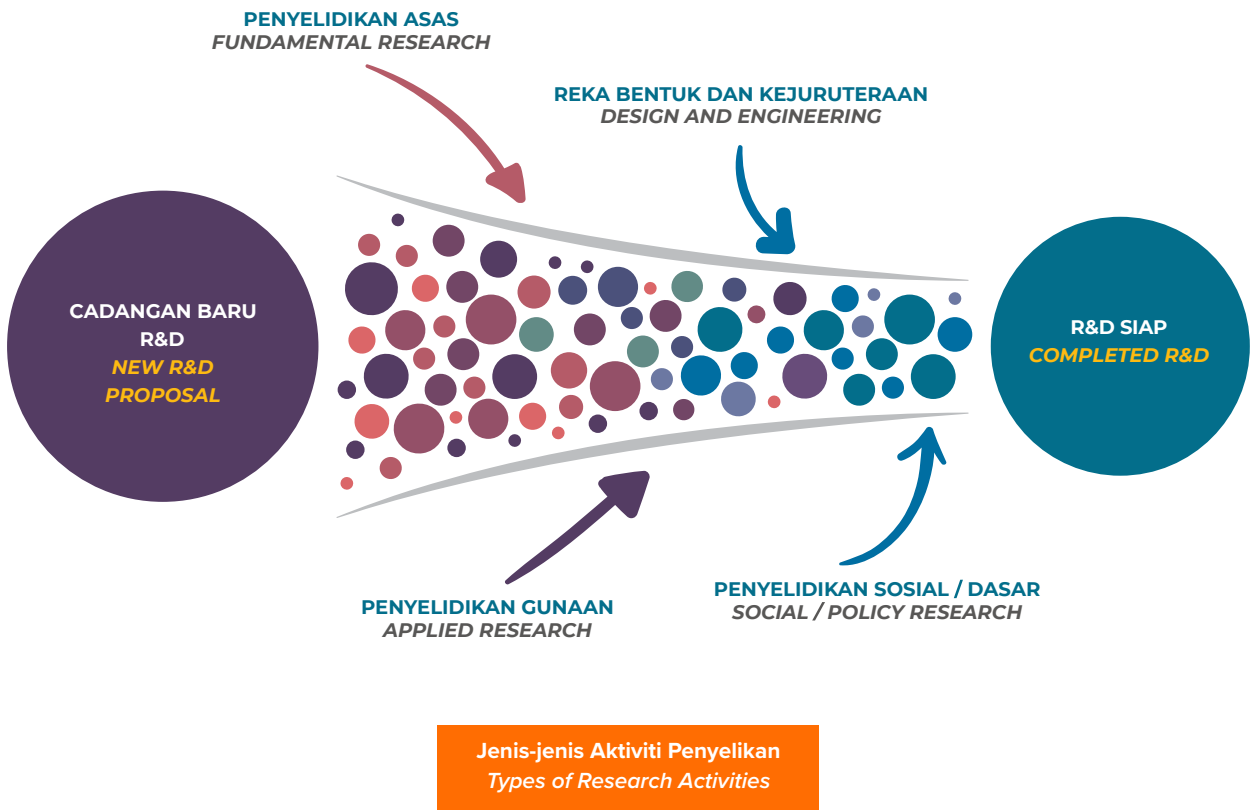
Ke arah menjadi institut keselamatan dan kesihatan pekerjaan (KKP) yang lebih inklusif di negara ini, NIOSH telah mempertingkatkan peranannya dengan meletakkan penyelidikan dan pembangunan (R&D) sebagai satu bidang teras untuk diteroka dan hasilnya akan dijadikan instrumen bagi membantu pelbagai pihak berkepentingan dalam KKP. Usaha ini juga adalah selaras dengan objektif penubuhan.

Dasar aktiviti penyelidikan dan pembangunan (R&D) di NIOSH boleh dibahagikan kepada 4 jenis dan diikuti oleh 6 strategi seperti ditunjukkan di rajah di bawah:

### *Research and Development (R&D) in Occupational Safety and Health (OSH) becomes a Core Area at NIOSH*

*As NIOSH moves towards becoming an exclusive institute in the country, it has increased its role to make research and development a core area that can be further explored. The results can become an instrument in assisting stakeholders in the field of OSH. Efforts to do so are aligned with the objectives of NIOSH.*

*The fundamentals of research and development (R&D) activities at NIOSH is divided into 4 types and with 6 strategies as shown in the diagram below:*





## STRATEGI RMC / RMC STRATEGY

KE ARAH INSTITUT PENYELIDIKAN NIOSH SEBAGAI RELEVAN, DIRUJUK, DIHORMATI (3R)  
TOWARDS NIOSH AS RELEVANT, REFERRED, RESPECTED (3R) RESEARCH INSTITUTE



**Strategi bagi Aktiviti Penyelidikan dan Pembangunan (R&D)**  
*Strategies for Research and Development (R&D) Activities*

Bagi menrealisasikan hasrat ini, NIOSH telah menubuhkan Pusat Pengurusan Penyelidikan (RMC) tersendiri pada tahun 2011 sebagai penggerak untuk terus menerajui dan maju ke hadapan dalam bidang penyelidikan dan pembangunan (R&D). Dengan wujudnya pusat ini, NIOSH berhasrat:

- i. Membudayakan pelbagai disiplin penyelidikan dalam KKP selaras dengan keutamaan semasa NIOSH;
- ii. Memangkin dan mempercepatkan penyelidikan berimpak tinggi menerusi kerjasama dan perkongsian strategik;
- iii. Menyelaras dan mengkoordinasikan projek penyelidikan melalui pendekatan pemantauan dan pengurusan yang berkesan; dan,
- iv. Menyebarkan hasil penyelidikan kepada semua pihak berkepentingan melalui platform dan media yang paling efektif.

*NIOSH established a Research Management Centre (RMC) to realise its intent to make research and development one of its core activities. The centre was launched in 2011 as a key driver that would explore and progress research and development at NIOSH. The setting up of RMC would fulfill the following:*

- i. To cultivate a multidisciplinary approach in occupational safety and health research that is aligned with current priorities at NIOSH;*
- ii. To yield and expedite high impact research through collaboration and sharing strategies;*
- iii. To coordinate research projects through an effective monitoring and management approach; and,*
- iv. Disseminate research outcome to interested parties or persons through suitable platforms and media.*

Bagi memastikan agar proses semak, imbang dan kualiti penyelidikan sentiasa berjalan seiring dengan matlamat yang telah digariskan, NIOSH telah membentuk dua jawatankuasa berikut:

- i. Jawatankuasa Penyelidikan dan Pembangunan (JPP) di peringkat Lembaga Pengarah.
- ii. Jawatankuasa Teknikal, Perundingan dan Penyelidikan (JTTP) di peringkat Pengurusan.

Bagi membolehkan bidang KKP terus dinamik, pelbagai kategori projek penyelidikan telah dijalankan di NIOSH. Antaranya:

- i. Kesihatan pekerjaan
- ii. Keselamatan pekerjaan
- iii. Sistem pengurusan KKP
- iv. Ergonomik
- v. Penilaian risiko KKP
- vi. Budaya KKP
- vii. Hazard fizikal dan kimia
- viii. Lain-lain yang berkaitan

*NIOSH formed 2 committees to oversee the process of checking, and the quality of research conducted are aligned with the stated objectives. The committees are:*

- i. Research and Development Committee at Board of Directors level*
- ii. Technical, Regulatory and Research at Management level*

*Many categories of research projects were conducted at NIOSH for the purpose of creating a dynamic environment in the field of occupational safety and health (OSH). Among these categories of research are:*

- i. Health environment of the work*
- ii. Safety environment of the work*
- iii. OSH management system*
- iv. Ergonomic*
- v. OSH risk assessment*
- vi. OSH culture*
- vii. Physical and chemical hazards*
- viii. Other relevant areas*





### Geran Penyelidikan Berasaskan Hasil

Mulai 2018 sehingga kini, NIOSH mula memperkenalkan Geran Penyelidikan Berasaskan Hasil (Outcome-based Research Grant) kepada pihak berkepentingan. Permohonan geran penyelidikan ini dibuka sepanjang tahun. Oleh yang demikian, sebarang hasil penyelidikan yang memenuhi kriteria berikut adalah amat dialu-alukan untuk memohon geran tersebut.

#### Kriteria Geran Penyelidikan

- i. Output kajian dapat diukur, boleh dicapai dan siap digunakan;
- ii. Output kajian adalah inovasi baru bagi produk, perkhidmatan, proses atau yang berkaitan;
- iii. Output kajian dapat memberikan penyelesaian 30-60% untuk masalah berkaitan KKP;
- iv. Output kajian akan menyokong fungsi teras NIOSH;
- v. Output kajian berpotensi tinggi untuk didaftarkan sebagai harta intelek;
- vi. Output kajian berpotensi tinggi untuk dikomersialkan;
- vii. Output kajian diperoleh melalui penggunaan kemudahan, makmal dan instrumen saintifik NIOSH yang sedia ada.

### Outcome-based Research Grant

Since 2018, NIOSH introduced the Outcome-based Research Grant to persons of interest. The application for this grant is available year round. Research work that fulfills the following criteria are strongly encouraged to apply for this grant.

#### Application Criteria for the Research Grant:

- i. Research output is measurable, achievable and immediately applicable;
- ii. Research output is a new innovation for products, services, processes, or where relevant;
- iii. Research output has the capacity to problem-solve 30-60% of OSH related issues;
- iv. Research output supports the core function of NIOSH;
- v. Research output of the study has high potential to be registered as intellectual;
- vi. Research output has a high potential for commercialisation;
- vii. Research output was developed through the use of NIOSH facilities, laboratory and scientific instruments.



Merujuk kepada rekod sejumlah 16 projek penyelidikan telah dianugerahkan di bawah geran ini dan terdiri daripada pelbagai organisasi penyelidikan dalam negara. Penubuhan dan penganugerahan geran penyelidikan ini secara tidak langsung telah banyak membantu mempromosi dan meningkatkan populariti NIOSH di kalangan pengamal KKP sama ada di institusi akademik mahupun di institut penyelidikan dalam negara.

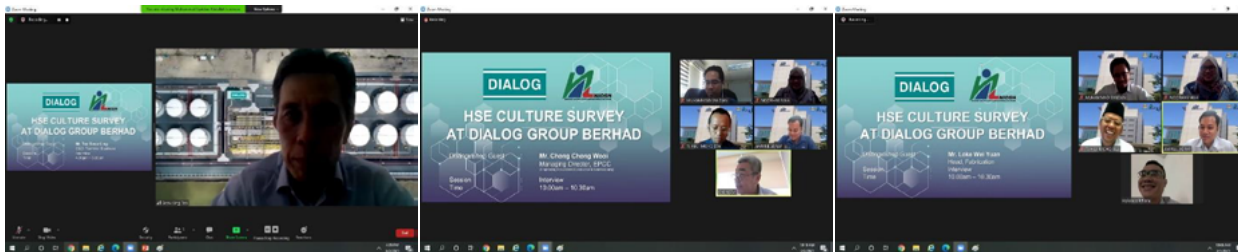
Referring to the records, a total of 16 research projects received from various research organizations in the country were awarded this grant. The establishment and awarding of this research grant has helped promote and increase the popularity of NIOSH among OSH practitioners in academic, and research institutions across the country.

**Penyelidikan Kontrak (CR) - Kajian Penilaian Kematangan Eksekutif Sains Kesihatan (HSE) di DIALOG Group Berhad**

Sesi temubual secara atas talian di antara pihak NIOSH dengan pihak pengurusan tertinggi Dialog Group Sdn Bhd diadakan bagi membincangkan projek kajian Penilaian Kematangan Eksekutif Sains Kesihatan yang bernilai RM38,000. Pihak-pihak ini terdiri daripada CEO Business Terminal, Ketua Pengurusan EPCC, Ketua Bahagian Fabrikasi dan Eksekutif Sains Kesihatan.

**Contracted Research - Health and Science Executive Maturity Survey at Dialog Group Sdn Bhd**

An online interview session was held between NIOSH and the senior management of Dialog Group Sdn Bhd to discuss a maturity survey project costing RM38,000 for Health and Science Executives. The persons who attended this session are Business Terminal CEO, Managing Director of EPCC, Head of Fabrication and Health and Science Executive.



**Hakcipta NIOSH**

NIOSH melalui Jabatan Konsultansi dan Penyelidikan (CRD) telah menjalankan kajian bagi membangunkan Penilaian Risiko Kesihatan alatan dan senarai semak (HRA Tool and Checklist) pada 2019-2020 bersama penyelidik dari Universiti Islam Antarabangsa Malaysia (UIAM). Kajian ini menghasilkan 3 Penilaian Risiko Kesihatan alatan bersama dengan 2 senarai semak yang telah didaftarkan sebagai hakcipta NIOSH:

1. NIOSH Biological HRA Tool (B)
2. NIOSH Radiological HRA Tool (R)
3. NIOSH Environmental HRA Tool (E)
4. NIOSH Chemical Checklist (C)
5. NIOSH Ergonomics Checklist (E)

**NIOSH Intellectual Property**

Through the Consultancy and Research Division (CRD), NIOSH conducted research to develop Health Risk Assessment Tool and Checklist (HRA Tool and Checklist). This was done from 2019 to 2020 in a joint project with researchers from University Islam Antarabangsa Malaysia (UIAM). The research outcome produced 3 HRA tools and 2 Checklists, all of which were registered as NIOSH intellectual property:

1. NIOSH Biological HRA Tool (B)
2. NIOSH Radiological HRA Tool (R)
3. NIOSH Environmental HRA Tool (E)
4. NIOSH Chemical Checklist (C)
5. NIOSH Ergonomics Checklist (E)



### **AOSHRI-Platform Kerjasama Antarabangsa untuk Penyelidikan dan Pembangunan (R&D) Keselamatan dan Kesihatan Pekerjaan (KKP)**

NIOSH sentiasa konsisten dalam mewujudkan jaringan antarabangsa dalam bidang penyelidikan khususnya melalui Institut Penyelidikan Keselamatan dan Kesihatan Pekerjaan Asia (AOSHRI). Terdiri daripada kombinasi negara-negara maju, membangun dan sedang membangun, AOSHRI dianggotai oleh negara-negara di benua Asia. Adalah amat bertuah bagi Malaysia dan NIOSH dapat beroleh manfaat dan belajar daripada negara dalam platform AOSHRI dan pada masa yang sama dapat membantu rakan-rakan dari negara yang sedang membangun dalam bidang KKP khususnya penyelidikan.

Hasil penglibatan NIOSH di dalam AOSHRI hampir lebih sedekad lalu telah meningkatkan penyertaan peserta daripada luar Negara melalui program anjuran NIOSH seperti SciCOSH dan COSH di Japan, Korea, China, Malaysia, Singapore, Sri Lanka dan Taiwan. Seterusnya hubungan baik dengan negara-negara anggota AOSHRI ini akan dikekalkan melalui penyertaan di dalam program 8th AOSHRI di Korea Selatan.

Melalui platform AOSHRI juga, NIOSH telah bekerjasama dengan JNIOASH Jepun dimana kedua-dua pihak menjalankan satu projek kajian Revolusi Industri 4.0 (IR 4.0) dan Impaknya keatas Keselamatan dan Kesihatan Pekerjaan (KKP) menerusi input rasmi yang disalurkan oleh setiap negara anggota. Hasil kajian ini akan dibentangkan di program AOSHRI yang berikutnya.

Dengan kriteria yang digariskan, setiap permohonan boleh dikemukakan kepada Pusat Pengurusan Penyelidikan NIOSH (RMC) melalui [rnc@niosh.com.my](mailto:rnc@niosh.com.my) atau layari <http://www.niosh.com.my/research-and-development> untuk maklumat lebih terperinci.

### **AOSHRI - International Platform for Research and Development Cooperation in Occupational Safety and Health (OSH)**

*NIOSH is consistent with its international relations in the field of research especially through the Asian Occupational Safety and Health Research Institute (AOSHRI) in South Korea. The institute consists of members from developed and developing countries in the Asian region. It is an honour to have NIOSH represent Malaysia as a member of this institute. NIOSH benefits from its membership as it learns from developed countries. In turn, NIOSH is also able to render help to other developing countries in the area of OSH and research.*

*It has been over decade that NIOSH holds a membership in AOSHRI. During this period, NIOSH contributed various programmes namely, SciCOSH and COSH that has helped to increase overall participation in AOSHRI. Participating countries include Japan, Korea, China, Malaysia, Singapore, Sri Lanka and Taiwan. The good relationship with AOSHRI will continue to be strengthen through NIOSH participation in the upcoming 8th AOSHRI in South Korea.*

*Through the AOSHRI platform, NIOSH was able to cooperate with JNIOASH in Japan in developing a research project titled "Industrial Revolution 4.0 (IR 4.0) and Its Impact on Occupational Safety and Health (OSH)". Members of AOSHRI also contributed to the research work. The outcome of this project will be presented in the upcoming AOSHRI.*

*Requests for research application and criteria guidelines can be forwarded to the Research Management Centre (RMC) at NIOSH [rnc@niosh.com.my](mailto:rnc@niosh.com.my). For more detailed information one can visit the following website: <http://www.niosh.com.my/research-and-development>.*



Barisan Delegasi Institut Penyelidikan Keselamatan dan Kesihatan Pekerjaan Asia (AOSHRI) Sesi persidangan dijalankan secara atas talian bagi kesemua negara yang terlibat  
*Delegation of the Asian Occupational Safety and Health Research Institute (AOSHRI) involving all members of the organisation attending an online conference session.*

**NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH (NIOSH)**  
*Institut Keselamatan dan Kesihatan Pekerjaan Negara*

**Penerbitan Jurnal Keselamatan dan Kesihatan Pekerjaan (JOSH) NIOSH**

NIOSH juga menerbitkan jurnalnya tersendiri berjudul Jurnal Keselamatan dan Kesihatan Pekerjaan (JOSH). Penerbitan ini adalah media rasmi NIOSH untuk menyebarkan khususnya hasil penyelidikan KKP di mana isu-isu dan perbincangan yang berkaitan dengan KKP dikumpul dan diterbitkan secara ilmiah. Kandungan jurnal ini akan disemak oleh Lembaga Editorial JOSH yang terdiri daripada kakitangan NIOSH, pengamal KKP di industri dan institusi akademik.

Setiap tahun dua edisi diterbitkan iaitu pada bulan Jun dan Disember. JOSH membantu memberikan maklumat teknikal dan saintifik untuk penyelidikan lanjutan. Pada masa yang sama mempromosikan KKP kepada industri dan pemegang taruh yang lain.

***Journal of Occupational Safety and Health published by NIOSH***

*NIOSH is the publisher for the Journal of Occupational Safety and Health (JOSH). The objective of the journal is to disseminate occupational safety and health research information to OSH practitioners and the industry. The contents of the journal discusses issues and matters related to OSH using the scientific method. The Editorial Board of the journal consists of NIOSH employees, OSH practitioners from the industry and academic institutions.*

*The journal is published in June and December each year producing two JOSH editions annually. JOSH provides technical and scientific information for research and concurrently promotes OSH to industries and stakeholders.*





Bil./ No.	Penyelidik (Penulis) / Researcher (Writer)	Tajuk Kertas Kerja Penyelidikan / Research Paper Title
1	Wan Nurhazirah binti Wan Harun, Razif Harun	Evaluation of Occupational Health and Safety Management System (OHSMS) Performance and Awareness among the Employees in the Faculty of Engineering, Universiti Putra Malaysia (UPM)
2	Zakiah Mohd Yusoff, Shafina Nadiawati Abdul, Putri Amirah Solehin Sullizi, Azrulazwan Abd Haddi, Suhaily Amran, Mohd Nor Hafsam Maghpor	A Study on Respirable Dust and Crystalline Silica among Construction Workers
3	Nor Sahira Mohd Salim, Mohd Nur Ikhwan Shafee, Siti Zaharah Abd. Rahman, Siti Sarah Zubir, Hazwan Adli Hamadan, Raemy Md Zein, Mohd Esa Baruji, Evelyn Guat Lin Tan	Development of Normative Data for Grip Strength between Genders in Malaysian Working-Age Population: Preliminary Study
4	Tam Jenn Zhueng, Yeoh Wen Liang, Choi Jeewon, Zuraida Mohamed, Loh Ping Yeap	A Case Study on Biomechanical Analysis of Kneeling and Squatting Methods During Manual Lifting Using Motion Capture Analysis
5	Muhammad Khairul Azfar Maha Yudden, Ahmad Shakir Mohd Saudi, Muhammad Muaz Mahmud, Fazlin Ali, Nur Zahidah Shafii, Nur Liyana Zakri, Mohd Khairul Amri Kamarudin, Madihah Mohd Saudi, Mohamad Hanafi Ali	Perception about Drone Application among Safety Officers at Building Construction Sites in Malaysia
6	Mohd Fareed Annuar Mazlan, Nik Nor Liyana Nik Ibrahim	Safety Devices Compliances Study: Liquid Fuel Dispenser Area of The Petrol Station
7	Siti Hafizah Zakaria, Rafizah Musa, Samira Albaty Kamaruddin	Risk Assessment and Roles of Stakeholders for Frame Scaffolding Procedures in Construction Projects
8	Rama Krishna Supramanian, Marzuk Isahak, Noran Naqiah Hairi	Hearing Conservation Program for Vector Control Workers: Short-Term Outcomes from a Randomized-Cluster Controlled Trial
9	Hazwan Adli Hamadan, Mohd Nur Ikhwan Shafiee, Nor Sahira Mohd Salim, Siti Zaharah Abd. Rahman, Siti Nur Sarah Zubir	Anthropometric of Adult Workers at Kota Kinabalu, Sabah, Malaysia.
10	Mohd Fareed Annuar Mazlan, Nik Nor Liyana Nik Ibrahim	Safety Devices Compliances Study: Liquid Fuel Dispenser Area of The Petrol Station
11	Mohd Shukri Mohd Arisa, Zuhairi Borhanuddin, Maryam Binti Zahaba, Wan Hazman Danial, Zakuan Azizi Shamsul Harumain, Siti Nurnafisah Mohd Zuraidi, Mohd Syahmi Idris, Wan Lutfil Hadi Wan Zain, Hazrin Bin Abdul Hadi, Shahrulnizam Jamen	The Potential of Agro Based Nanomaterials for Nanofilters to Capture Suspended Titanium Nanoparticles in Air
12	Jefferelli SB, Trauth B, Abu Hasan S	Preventing Non-Authorized Access to Employee Medical Records at Worksites

Penulis yang berminat untuk menyumbangkan artikel boleh menghantar kerja mereka menerusi [journal@niosh.com.my](mailto:journal@niosh.com.my) atau untuk keterangan lanjut <http://www.niosh.com.my/publication/niosh-journal>

Writers who are interested in contributing articles can submit their work via [journal@niosh.com.my](mailto:journal@niosh.com.my) or for more information visit <http://www.niosh.com.my/publication/niosh-journal>







# PUSAT PENILAIAN DAN TEKNOLOGI KAWALAN KESELAMATAN DAN KESIHATAN PEKERJAAN (OSHECT)



**PUSAT PENILAIAN DAN TEKNOLOGI KAWALAN  
 KESELAMATAN DAN KESIHATAN PEKERJAAN (OSHECT)**

Di bawah Rancangan Malaysia Ke-11 (RMK-11), Kerajaan Malaysia melalui Kementerian Sumber Manusia (KSM) telah memperuntukkan bantuan kewangan sebanyak RM25 juta untuk membangunkan Pusat Penilaian dan Teknologi Kawalan Keselamatan dan Kesihatan Pekerjaan (OSHECT) bagi merealisasikan hak kerajaan dan juga visi dan misi penubuhan NIOSH.

Pembangunan OSHECT ini terdiri daripada beberapa buah makmal berteknologi tinggi seperti:

- Makmal Analisa Bahan Kimia Berbahaya kepada Kesihatan (CHL),
- Makmal Pengurusan Kesihatan Pekerja Bersepadu (OHL)
- Makmal Pengesahan Peralatan Perlindungan Pernafasan (DML),
- Makmal Pengesahan Peralatan Pencegahan Jatuh (FPETL),
- Makmal Simulasi Interaktif Peralatan Perlindungan Peribadi (PSL),
- Makmal Pengujian Hidrostatik (HRL),
- Makmal Penentuukuran Alat Penguji Gas (GCL),
- Makmal Penentuukuran Peralatan Sainifik (SECL),
- Makmal Kejuruteraan Forensik (FEL),
- Makmal Ergonomik Persekitaran (EEL) dan
- Makmal Ergonomik Manusia (HEAL).

Di bawah pembangunan OSHECT, terdapat dua (2) penambahan makmal baharu iaitu:

- Makmal Pengesahan Peralatan Perlindungan Pernafasan (GML) dan
- Face and Medical Mask Laboratory (FMML) yang mana masih dalam proses pembangunan.

Objektif keseluruhan projek ini adalah untuk menyediakan kemudahan sokongan bagi aktiviti-aktiviti NIOSH di ibu pejabat NIOSH Bandar Baru Bangi dan di Kampus Wilayah Selatan, Johor. Dengan kemudahan ini pelbagai aktiviti baru akan dapat dijalankan berasaskan permintaan trend pusat latihan masa kini. Strategi bagi pembangunan OSHECT adalah seperti rajah di mukasurat berikutnya:

**OCCUPATIONAL SAFETY AND HEALTH HAZARD  
 EVALUATION AND CONTROL TECHNOLOGY (OSHECT)  
 CENTER**

*The Malaysian Government awarded RM25 million to NIOSH to develop the Occupational Safety and Health Hazard Evaluation and Control Technology (OSHECT) Center under the 11th Malaysia Plan (RMK-11) through the Ministry of Human Resources. The objective of OSHECT is to support the vision and mission of NIOSH, and to realise the government's development plans for the country.*

*The creation of OSHECT consists of laboratories using high technology. These laboratories are as listed:*

- Chemical Hazardous to Health Laboratory (CHL)
- Occupational Health Laboratory (OHL)
- Dust Mask Laboratory (DML)
- Fall Protective Equipment Testing Laboratory (FPETL)
- Protective Simulation Laboratory (PSL)
- Hydrostatic and Refilling Laboratory (HRL)
- Gas Detector Calibration Laboratory (GCL)
- Scientific Equipment Calibration Laboratory (SECL)
- Forensic Engineering Laboratory (FEL)
- Ergonomic Environment Laboratory (EEL)
- Human Ergonomic Assessment Laboratory (HEAL)

*Two additional laboratories are currently a work-in-progress:*

- Gas Mask Laboratory (GML)
- Face and Medical Mask Laboratory (FMML)

*The overall objective of these projects is to support developments and activities at NIOSH Bandar Baru Bangi and Southern Regional Campus in Johor. By providing a multiple and new facilities, the demands and trends coming from these centers will be fulfilled. The strategy for the development of OSHECT is displayed in Figure in the next page:*



01

Towards Certification of MS ISO/IEC 17025

02

Proficiency Testing (PT)

05

Investment in Development

# OSHECT

OSH HAZARD EVALUATION AND CONTROL TECHNOLOGY CENTRE

04

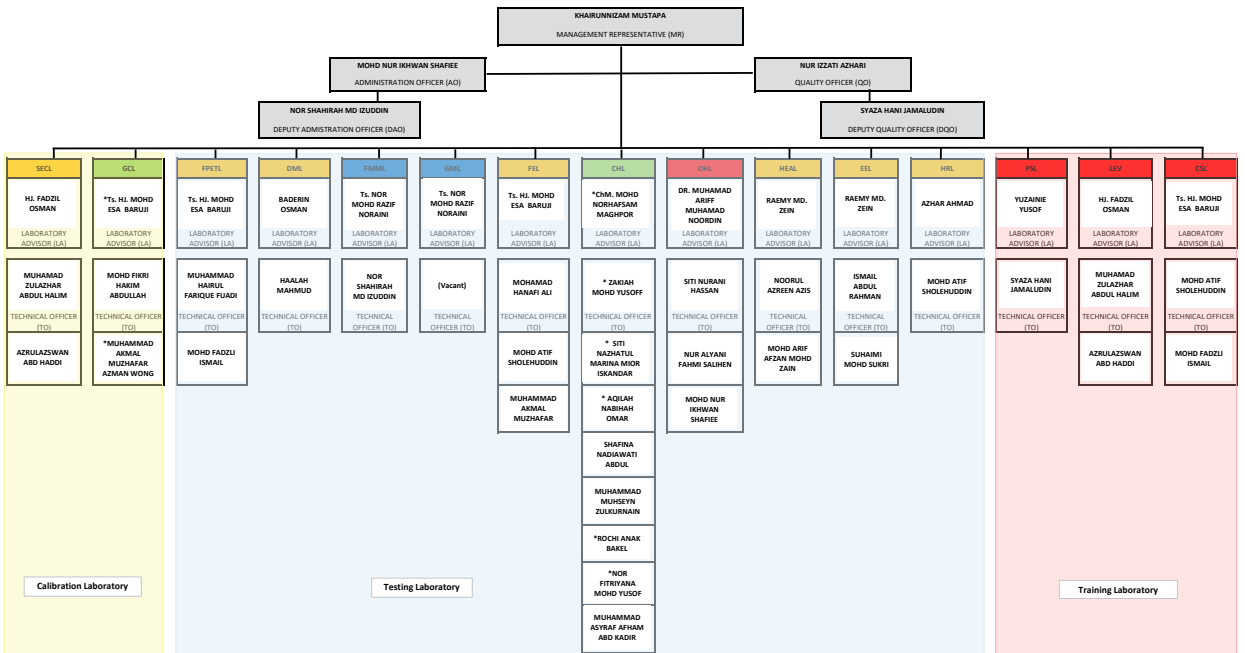
Interlab Services

03

International Cooperation

## Carta Organisasi OSHECT

OSH HAZARD EVALUATION AND CONTROL TECHNOLOGY CENTRE (OSHECT) ORGANIZATION CHART



LEGEND:

CHL	: CHEMICAL HAZARDOUS TO HEALTH LABORATORY	GCL	: GAS DETECTOR CALIBRATION LABORATORY
DMIL	: DUST MASK LABORATORY	HRL	: HYDROSTATIC AND REFILLING LABORATORY
FPETL	: FALL PROTECTION EQUIPMENT & TESTING LABORATORY	PSL	: PPE SIMULATION LABORATORY
FEL	: FORENSIC ENGINEERING LABORATORY	SEEL	: SCIENTIFIC EQUIPMENT CALIBRATION LABORATORY
EEL	: ENVIRONMENTAL ERGONOMICS LABORATORY	GMIL	: GAS MASK LABORATORY
HEAL	: HUMAN ERGONOMICS ASSESSMENT LABORATORY	FMML	: FACE AND MEDICAL MASK LABORATORY
OHL	: OCCUPATIONAL HEALTH LABORATORY	LEV	: LOCAL EXHAUST VENTILATION LABORATORY
		CSL	: CONFINED SPACE LABORATORY

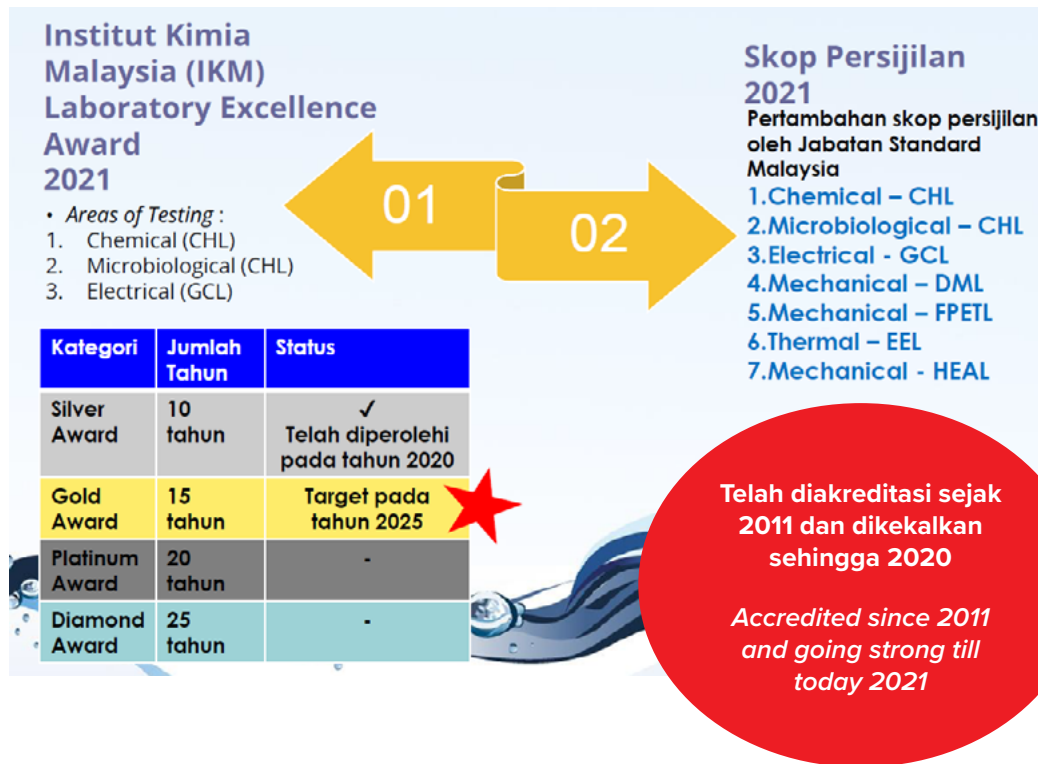
STATUS OF LABORATORY CERTIFICATION

	CERTIFIED
	TOWARDS CERTIFICATION
	NOT APPLICABLE
	UNDER CONSTRUCTION

REMARK: \* APPROVED SIGNATORY

## SASARAN GOLD AWARD

## GOLD AWARD TARGETS



Makmal Analisa Bahan Kimia Berbahaya kepada Kesihatan (CHL), dan Makmal Penentuukuran Alat Penguji Gas (GCL) telah menerima pengiktirafan Makmal Cemerlang bagi Anugerah Laboratory Excellence Award 2021 anjuran Institut Kimia Malaysia (IKM).

Pihak IKM turut menganugerahkan makmal Analisa Bahan Kimia BerBahaya Kepada Kesihatan (CHL) sebagai penerima Anugerah Silver Award bagi kecemerlangan makmal sepuluh (10) tahun berturut-turut dan sasaran seterusnya adalah dengan mencapai Anugerah Gold Award pada tahun 2025 bagi kecemerlangan makmal lima belas (15 tahun) berturut-turut daripada Institut Kimia Malaysia (IKM). Anugerah ini telah membuktikan kecemerlangan perkhidmatan yang ditawarkan oleh setiap makmal secara konsisten kepada para pelanggan NIOSH dan seterusnya meningkatkan kepercayaan dan keyakinan warga awam, pengamal KKP serta industri tempatan untuk mendapatkan perkhidmatan analisis di makmal-makmal NIOSH.

*The Chemicals Hazardous to Health Laboratory (CHL) and the Gas Detector Calibration Laboratory (GCL) were recognised and endorsed with the Laboratory Excellence Award 2021 by the Chemical Institute of Malaysia (CIM).*

*CIM also awarded CHL the Silver Award for receiving this prestigious award consecutively for 10 years. NIOSH aims to achieve the Gold Award in 2025 for 15 years of receiving the laboratory excellence award from CIM. This award will symbolise excellence services consistently rendered by all the laboratories to NIOSH clients. Furthermore, this gold award would build greater the trust and confidence among the public, OSH practitioners and the industries when they procure services from NIOSH laboratories.*



**Projek dan Sampel OSHECT Bagi Tahun 2021**
**OSHECT PROJECTS AND SAMPLING FOR THE YEAR  
2021**

Makmal Laboratories	Sampel Sampling	Projek Projects
CHL	6478	553
DML	3113	472
FPETL	164	10
GCL	91	91
HRL	13	3
HEAL	9	4
OHL	391	3

**Pembangunan Fasiliti Dan Peralatan Makmal**

Makmal OSHECT telah dibangunkan dari tahun 2016 melalui geran RMK-11. Bagi menjamin kualiti dan servis makmal pada tahun 2021, terdapat pembangunan fasiliti dan peralatan makmal. Butiran adalah seperti berikut:

***Development Laboratory Facilities and Equipment***

*OSHECT laboratory was developed in 2016 from grants received through the 11th Malaysia Plan (RMK-11). In the year 2021, developments and upgrade were implemented to guarantee the quality and calibre of laboratory services. Details of the project works are stated in the table below:*

BIL	PEMBANGUNAN FASILITI DAN PERALATAN MAKMAL <i>DEVELOPMENT OF LABORATORY FACILITIES AND EQUIPMENT</i>	MAKMAL LABORATORY
1.	<b>Peralatan / Equipment:</b> <ol style="list-style-type: none"> <li>Spektrometri Jisim Plasma Berganding Secara Induktif / <i>Inductively Coupled Plasma Mass Spectrometry (ICP-MS)</i></li> <li>Penganalisis Merkuri <i>Mercury Analyzer</i></li> <li>Pembelauan Sinar X-Ray (XRD) Ultima IV / <i>X-ray Diffraction (XRD) Ultima IV</i></li> <li>Sinar X-Ray Pendarfluor (XRF) NEX DE / <i>X-ray Fluorescence (XRF) NEX DE</i></li> <li>Kromatografi Ion (IC) / <i>Ion Chromatography (IC)</i></li> <li>Mikroskopi Cahaya Terkutub (PLM) / <i>Polarized Light Microscopy (PLM)</i></li> <li>Penyimbang Analisis Mikro (XPE 26DR) / <i>Micro Analytical Balance (XPE 26DR)</i></li> </ol>	<p>Makmal Analisa Bahan Kimia Berbahaya kepada Kesihatan (CHL)</p>

BIL	PEMBANGUNAN FASILITI DAN PERALATAN MAKMAL DEVELOPMENT OF LABORATORY FACILITIES AND EQUIPMENT	MAKMAL LABORATORY
2.	<ol style="list-style-type: none"> <li>1. Sistem Penguji Penapis Automatik Aliran Tinggi TSI / <i>TSI High Flow Automated Filter Tester System</i></li> <li>2. Mesin Pernafasan dengan Paru-paru Utama Berhujung Dua / <i>Breathing Machine with Double Ended Main Lung</i></li> <li>3. Pelembap / <i>Humidifier</i></li> <li>4. Kepala Sheffield / <i>Sheffield Head</i></li> <li>5. Penggoncang Penapis / <i>Filter Shaker</i></li> <li>6. Alat Pengukur Rintangan Pernafasan / <i>Breathing Resistance Measuring Equipment</i></li> <li>7. Pengabut NaCl Besar / <i>Large NaCl Atomizer</i></li> <li>8. Fotometer Nyalaan NaCl / <i>NaCl Flame Photometer</i></li> <li>9. Treadmill / <i>Treadmill</i></li> <li>10. Sistem Ujian Kemudahbakaran Rig / <i>Flammability Test Rig System</i></li> <li>11. Sistem Tambahan Peralatan Ujian CO<sub>2</sub> / <i>Supplementary CO<sub>2</sub> Test Equipment System</i></li> <li>12. Sistem Peralatan Ujian Habuk Dolomit / <i>Dolomite Dust Test Equipment System</i></li> <li>13. Sistem Peralatan Ujian Penapis Minyak Parafin / <i>Paraffin Oil Filter Test Equipment System</i></li> <li>14. Penjana Udara Mampat / <i>Compressed Air Generator</i></li> </ol>	<p>Makmal Pengesahan Peralatan Perlindungan Pernafasan (DML)</p>
3.	<p><b>Kemudahan / Facilities:</b></p> <ol style="list-style-type: none"> <li>1. Bilik Kekuatan Daya Statik / <i>Static Strength Room</i></li> <li>2. Bilik Ruang Kealaman Iklim / <i>Climatic Chamber Room</i></li> <li>3. Menara Prestasi Dinamik / <i>Dynamic Performance Tower</i></li> </ol> <p><b>Peralatan / Equipment:</b></p> <ol style="list-style-type: none"> <li>1. Mesin Ujian Sejagat (UTM) / <i>Universal Testing Machine (UTM)</i></li> <li>2. Instrumen Pengukuran Daya Prestasi Dinamik / <i>Dynamic Performance Force Measurement Instrument</i></li> <li>3. Mesin Bilik Ruang Kealaman Iklim Berat Mati (FPETL) / <i>Climatic Chamber Machine Dead weight FPETL</i></li> </ol>	<p>Makmal Pengesahan Peralatan Pencegahan Jatuh (FPETL)</p>
4.	<p><b>Kemudahan / Facilities:</b></p> <p><b>Bilik / Room:</b></p> <ol style="list-style-type: none"> <li>1. Makmal Akustik / <i>Acoustic Lab</i></li> <li>2. Makmal Getaran dan Terma / <i>Vibration &amp; Thermal Lab</i></li> <li>3. Makmal Aliran Udara / <i>Air Flow Lab</i></li> </ol> <p><b>Peralatan / Equipment:</b></p> <ol style="list-style-type: none"> <li>1. Bilik Lengkap Kalis Bunyi / <i>Full Sound Proof Room</i></li> <li>2. Sistem Lengkap Penentuan Sistem Akustik / <i>Full System Acoustic Calibration System</i></li> <li>3. Ruang Tidak Bergema / <i>Anechoic Chamber</i></li> </ol>	<p>Makmal Penentuan Peralatan Sainifik (SCEL)</p>



BIL	PEMBANGUNAN FASILITI DAN PERALATAN MAKMAL <i>DEVELOPMENT OF LABORATORY FACILITIES AND EQUIPMENT</i>	MAKMAL <i>LABORATORY</i>
5.	<p><b>Kemudahan / Facilities:</b></p> <p><b>Bilik / Room:</b></p> <ol style="list-style-type: none"> <li>1. Bilik Penilaian Fizikal dan Kecergasan / <i>Physical and Fitness Assessment Room</i></li> <li>2. Bilik Penilaian Kardiorespiratori / <i>Cardiorespiratory Assessment Room</i></li> <li>3. Gimnasium / <i>Gymnasium</i></li> </ol> <p><b>Peralatan / Equipment:</b></p> <ol style="list-style-type: none"> <li>1. Penganalisis Komposisi Badan (Stesen Tetap dan Mudah Alih) / <i>Body Composition Analyzer (Station and Mobile)</i></li> <li>2. Pemantau Status Fisiologi (HR, BR, Postur) / <i>Physiological Status Monitor (HR, BR, Posture)</i></li> <li>3. ECG Mudah Alih / <i>Mobile ECG</i></li> <li>4. Spirometri / <i>Spirometer</i></li> <li>5. Audiometri / <i>Audiometer</i></li> </ol>	Makmal Pengurusan Kesihatan Pekerjaan Bersepadu (OHL)
6.	<p><b>Kemudahan / Facilities:</b></p> <ol style="list-style-type: none"> <li>1. Bahagian Penyediaan dan Analisis Bahan / <i>Material Preparation and Analysis Section</i></li> <li>2. Bengkel Kejuruteraan / <i>Engineering Workshop</i></li> <li>3. Bahagian Prototaip Rapid dan Pembuatan Model 3D / <i>3D and Rapid Prototyping Section</i></li> </ol> <p><b>Peralatan / Equipment:</b></p> <ol style="list-style-type: none"> <li>1. Mesin Pematong Manual Pelelas Metalografik / <i>Metallographic Abrasive Manual Cutting Machine</i></li> <li>2. Pemasangan Automatik Mesin Pencetakan Akhbar Metalografik / <i>Metallographic Automatic Mounting Press Machine</i></li> <li>3. Pengisar dan Pengilat Separa Automatik Metalografik / <i>Metallographic Semi-Automatic Grinder-Polisher</i></li> <li>4. Penguji Kekerasan Mikro / <i>Micro Hardness Tester</i></li> <li>5. Mikroskop Metalurgi Dengan Kamera Mikroskopi dan Perisian Analisa / <i>Metallurgical Microscope With Microscopy Camera and Analysis Software</i></li> <li>6. Pencetak 3D Untuk Prototaip Rapid / <i>3D Printer For Rapid Prototyping</i></li> </ol>	Makmal Kejuruteraan Forensik (FEL)

### Program Kerjasama Luar

Pelbagai bentuk kursus dan latihan telah dirancang bagi tujuan untuk meningkatkan pengetahuan, kesedaran dan juga kompetensi bagi kesemua personel makmal. Bagi menjamin kualiti dan perjalanan khidmat rundingan di jabatan ini, personel makmal Pusat Penilaian dan Teknologi Kawalan Keselamatan dan Kesihatan Pekerjaan (OSHECT) telah menghadiri beberapa program latihan anjuran NIOSH dan juga luar NIOSH. Bagi tahun 2021, norma baharu telah diaplikasikan dalam budaya kerja. Dengan kerjasama daripada pelbagai pihak, beberapa kursus dan latihan telah berjaya dijalankan. Butiran program adalah seperti berikut :

### External Collaboration Programmes

*Courses and trainings of many types or categories were planned with the aim of upscaling knowledge, awareness and also competency levels for all laboratory personnel. In order to guarantee the quality and effectiveness of regulatory services in the laboratories, OSHECT personnel were given the opportunity to attend training programmes organised by NIOSH and external partners. For the year 2021, the new normal was applied in the work culture. With the cooperation of all departments, courses and trainings were successfully conducted. Details of the programme are listed in the Table below:*

MAKMAL LABORATORY	ORGANISASI LUAR EXTERNAL ORGANIZATIONS	BENTUK KERJASAMA FORMS OF COOPERATION
CHL	Universiti Tun Hussein Onn Malaysia (UTHM)	Penyelidikan
	Universiti Islam Antarabangsa (UIA)	Penyelidikan
	Universti Kebangsaan Malaysia (UKM)	Penyelidikan
DML	IMR Test Labs	Penyelidikan
	Universiti Malaysia Sarawak (UNIMAS)	Penyelidikan
	Kementerian Perdagangan Dalam Negeri, Koperasi dan Kepenggunaan (KPDNKP)	Penyelidikan
FPETL	Universiti Malaysia Terengganu (UMT)	Penyelidikan
GCL	Universiti Malaysia Terengganu (UMT)	Penyelidikan
	SIRIM	Pengujian
HRL	RESPIRA	Interlabs
HEAL	Universiti Tun Hussein Onn Malaysia (UTHM)	Penyelidikan
	Universiti Teknologi Malaysia (UTM)	Penyelidikan
	Universiti Malaysia Kelantan (UMK)	Penyelidikan
EEL	Universiti Teknologi Malaysia	Penyelidikan
	Ministry of Education (MOE)	Penyelidikan



## Hasil Penerbitan

Makmal Pusat Penilaian dan Teknologi Kawalan Keselamatan dan Kesihatan Pekerjaan (OSHECT) juga telah menjalankan projek-projek penyelidikan bersama industri, universiti, kolej dan sebagainya. Beberapa projek tersebut telah mengeluarkan penerbitan seperti di bawah :

## Publications

OSHECT laboratories organised a number of research projects along with industry partners, universities, colleges and other external parties. Publications from these projects are listed in the Table below:

Bil. No.	Makmal Laboratory	Penerbitan Publication
1.	Makmal Analisa Bahan Kimia Berbahaya kepada Kesihatan (CHL)	<p>Kerja-kerja Berkaitan Asbestos Dalam Penyelenggaraan Brek Kenderaan di Malaysia: Pematuhan Peraturan dan Cadangan Rangka Kerja Pengurusan Risiko (No. AJ/21/01/23)</p> <p><i>Asbestos-related Work in Vehicle Brake Maintenance in Malaysia: Regulatory Compliance and Risk Management Framework Recommendation (No. AJ/21/01/23)</i></p>
2.	Makmal Ergonomik Manusia (HEAL)	<p><b>[1 Bab Buku: 2 Jurnal Scopus]</b></p> <ul style="list-style-type: none"> <li>• Penjenteraan Pertanian dan Automasi Untuk Kecekapan Pertanian</li> <li>• Ergonomik dan Pengendalian Manual Penambahbaikan Tempat Kerja : Kajian Kes Anggota Bomba di Pagoh</li> <li>• Pembangunan Instrumen Tinjauan Untuk Mengukur Kepuasan Pekerja terhadap Kebolehgunaan Manual Pengendalian Peralatan di Gudang : Kajian Perintis</li> </ul> <p><b>[1 Book Chapter: 2 Scopus Journal]</b></p> <ul style="list-style-type: none"> <li>• <i>Agricultural Mechanisation and Automation for Precision Farming</i></li> <li>• <i>Ergonomics and Manual Handling Workplace Improvement : A Case Study of Firefighters at Pagoh</i></li> <li>• <i>Development of a Survey Instrument for Measuring Workers Satisfaction on Usability of Manual Handling Equipments at the Warehouse : A Pilot Study</i></li> </ul>



Bil. No.	Makmal Laboratory	Penerbitan Publication
3.	Makmal Ergonomik Persekitaran (EEL)	<p><b>[5 Jurnal Scopus]</b></p> <ul style="list-style-type: none"> <li>• Penerbitan Jurnal: Kajian CFO tentang Implikasi Terma Pada Badan Manusia dalam Persekitaran Pejabat.</li> <li>• Penerbitan Jurnal: Taburan Suhu Kulit dan Kesan Terma Simulasi Di Suasana Kealaman Tapakbina.</li> <li>• Jurnal Fizik: Implikasi Suhu Kulit Manusia Di Suasana Kelembapan Tinggi Keatas Pekerja Pembinaan Dengan Menggunakan Simulasi Terma Komputasi.</li> <li>• Penerbitan Prosiding: Pengoptimuman Suhu dan Kelembapan Relatif Dengan Pengambilan Maksimum Oksigen (VO<sub>2</sub>max) dan Kadar Jantung (HR) dengan Menggunakan Metodologi Respons Permukaan (RSM).</li> <li>• Penerbitan Prosiding: Kesan Terma Terhadap Persepsi Manusia Di Kalangan Pekerja Tapakbina Dengan Menggunakan Struktura Pemodelan Persamaan (SEM).</li> </ul> <p><b>[5 Scopus Journal]</b></p> <ul style="list-style-type: none"> <li>• <i>Journal Publication: CFO Study on Thermal Implication Towards Human Body in Office Environment</i></li> <li>• <i>Journal Publication: Skin Temperature Distribution on Simulation Thermal Effects Under Construction Climate</i></li> <li>• <i>Journal of Physics: Implication of Human Skin Temperature Under High Humidity to the Construction Workers' by Using Computational Thermal Simulation</i></li> <li>• <i>Proceeding Publication: Optimization of Temperature and Relative Humidity with Maximum Oxygen Uptake (VO<sub>2</sub>max) and Heart Rate (HR) by Using Response Surface Methodology (RSM)</i></li> <li>• <i>Proceeding Publication: The Effect of Thermal Towards Human Perception of Malaysian Construction Workers Through Structural Equation Modelling (SEM)</i></li> </ul>

### Audit & Pemeriksaan

Sasaran utama bagi tahun 2021 adalah untuk mendapatkan persijilan MS ISO 17025 bagi dua makmal iaitu Makmal Pengesahan Peralatan Perlindungan Pernafasan (DML) dan Makmal Pengesahan Peralatan Pencegahan Jatuh (FPETL). Persijilan ini amat penting bagi mematuhi piawai yang ditetapkan selain mendapatkan keyakinan pelanggan untuk menghantar sampel ke makmal NIOSH pada masa hadapan.

Berikut merupakan maklumat ringkas berkenaan sesi audit dan pemeriksaan yang telah dijalankan:

### Inspections and Audits

*The key target for the year 2021 is to be certified with MS ISO: 17025 for the Dust Mask Laboratory (DML) and the Fall Protection Equipment Testing Laboratory (FPETL). The certification is of utmost importance in order to comply with standards set by ISO so as to develop confidence and trust with customers and clients that they may send samples to NIOSH laboratories for testing.*

*Follow is a brief summary of the audit and inspection:*

BIL No.	PERKARA SUBJECT	PEMERIKSA AUDITOR	MAKMAL TERLIBAT LABORATORY INVOLVED
1.	Audit Dalaman Internal Audit	NIOSH	Makmal Pusat Penilaian dan Teknologi Kawalan Keselamatan dan Kesihatan Pekerjaan (OSHECT)
2.	Audit Pensijilan Intertek Bagi Sistem Pengurusan ISO 9001:2015 (QMS), ISO 45001:2018 (OSHMS), ISO 14001:2015 (EMS) Intertek Certification Audit for Management Systems ISO 9001:2015 (QMS), ISO 45001:2018 (OSHMS), ISO 14001:2015 (EMS)	Auditor Luar External Auditor	Makmal Pusat Penilaian dan Teknologi Kawalan Keselamatan dan Kesihatan Pekerjaan (OSHECT)
3.	Pensijilan Semula Recertification	Institut Kimia Malaysia (IKM) Malaysia Chemical Institute	Makmal Analisa Bahan Kimia Berbahaya kepada Kesihatan (CHL)

#### Pusat Penilaian dan Teknologi Kawalan Keselamatan dan Kesihatan Pekerjaan (OSHECT)

Makmal Pusat Penilaian dan Teknologi Kawalan Keselamatan dan Kesihatan Pekerjaan (OSHECT) telah menerima kunjungan pelawat dari dalam dan luar negara sepanjang tahun 2021. Pada tahun 2021 jumlah keseluruhan pelawat OSHECT adalah sebanyak 517 pelawat termasuk termasuk lawatan ke makmal di cawangan Johor. Objektif utama lawatan kali ini adalah lebih menjurus kepada kolaborasi antara makmal, penggunaan fasiliti dan kemudahan makmal. Di bawah ialah butiran senarai kehadiran lawatan ke makmal OSHECT sepanjang tahun 2021. Sehubungan dengan itu, jumlah pelawat mengikut makmal OSHECT boleh dibahagikan seperti berikut:

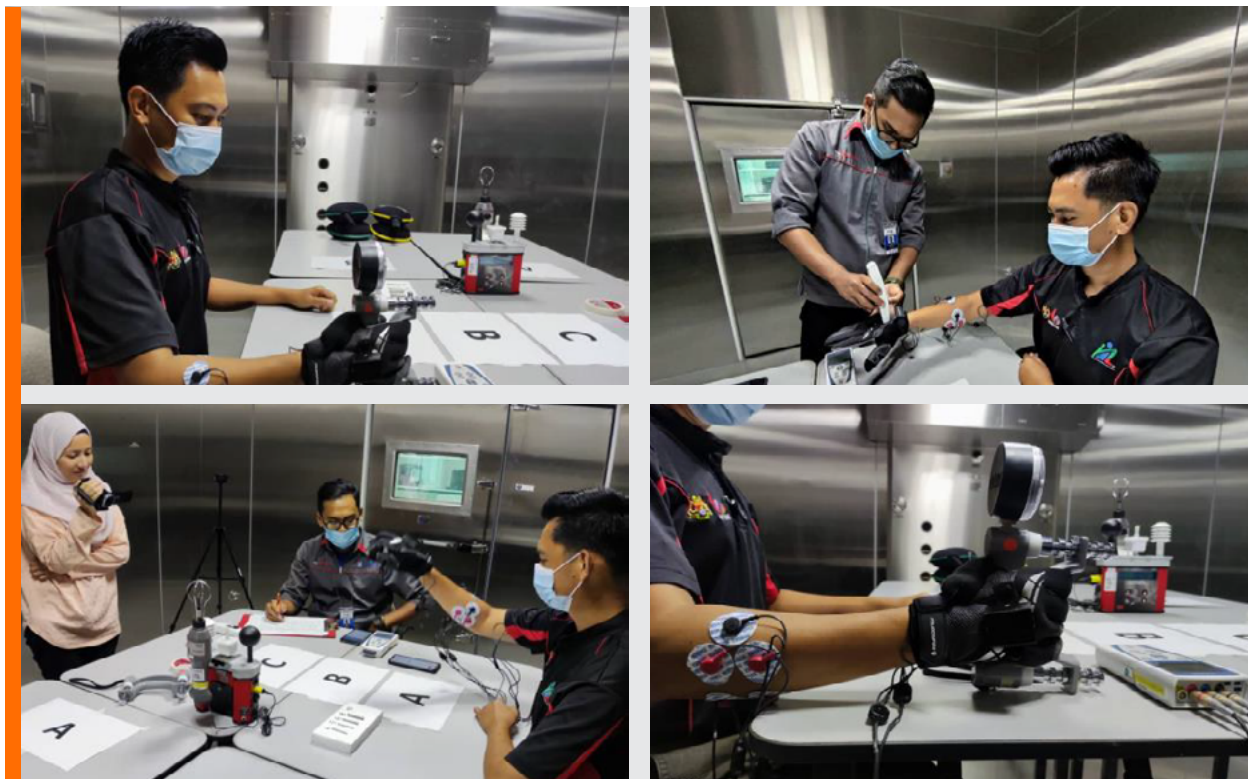
#### Visits to the OSH Hazard Evaluation and Control Technology (OSHECT)

*The OSH Hazard Evaluation and Control Technology (OSHECT) laboratory received local and international visitors through 2021. A total of 517 persons visited OSHECT laboratories including NIOSH branches in Johor. The main objective of these visitors was to develop an inter-laboratories collaboration, to utilize facilities and laboratory services. Below is a list of visits to OSHECT laboratories for 2021 along side visitor count to each laboratory:*

Bil NO.	MAKMAL LABORATORY	BILANGAN PELAWAT NUMBER OF VISITORS
1	Makmal Analisa Bahan Kimia Berbahaya kepada Kesihatan (CHL)	89
2	Makmal Pengesahan Peralatan Perlindungan Pernafasan (DML)	73
3	Makmal Pengurusan Kesihatan Pekerjaan Bersepadu (OHL)	69
4	Makmal Pengesahan Peralatan Pencegahan Jatuh (FPETL)	19
5	Makmal Ergonomik Manusia (HEAL) dan Makmal Ergonomik Persekitaran (EEL)	78

Bil NO.	MAKMAL LABORATORY	BILANGAN PELAWAT NUMBER OF VISITORS
6	Protective Simulation Laboratory (PSL)	36
7	Makmal Penentukuran Peralatan Saintifik (SECL)	56
8	Makmal Penentu Ukuran Alat Penguji Gas (GCL)	23
9	Makmal Kejuruteraan Forensik (FEL)	49
10	Makmal Pengujian Hidrostatik (HRL)	25
<b>JUMLAH PELAWAT NUMBER OF VISITORS</b>		<b>517</b>

**Pembangunan Kapasiti**  
*Capacity Development*



Ujian ketangkasan dan keselesaan keatas sarung tangan di makmal bagi verifikasi produk projek penyelidikan TNB (di makmal Wilayah Pantai Timur, Johor).

*Dexterity and comfort test on hand gloves for product verification by the TNB research project at the East Coast Regional laboratory in Johor.*



Makmal Penentu Ukuran Alat Penguji Gas (GCL) telah menjalankan kajian rintis kalibrasi in-situ di NIOSH Johor. Sebanyak 6 unit pengesan gas telah ditentu ukur bagi tujuan pameran.

*The Gas Detector Calibration Laboratory (GCL) Measurement Laboratory conducted a pilot study calibration in-situ at NIOSH Johor. A total of 6 units of gas detectors were measured for exhibition purposes.*



Bengkel Pengukuran Ketidakpastian ISO/IEC 17025 untuk makmal yang terlibat dengan lanjutan skop – anjuran QMD dan HRD NIOSH.

*ISO/IEC 17025 Measurement of Uncertainty Workshop for laboratories involved with Extension of Scope - organised by QMD and HRD NIOSH.*





Ujian rintis untuk kajian tentang “Kawalan Intervensi Ergonomik untuk Pengendalian Bahan Secara Manual Dalam Sektor Pembuatan” sedang dijalankan di Pusat Kecermelangan Ergonomik Johor. Ujian rintis ini menggunakan alatan kajian Monitor Pergerakan Lumbar Industri (ILMM) dan Elektromiografi (EMG)

*A pilot test for “Study on Ergonomics Intervention Control for Manual Material Handling in Manufacturing Sector” was conducted at the Ergonomic Excellence Centre at NIOSH Johor. The pilot test utilized the measuring equipment Industrial Lumbar Motion Monitor (ILMM) and Electromyography (EMG).*





SUDUT GALERI FOTO  
PHOTO GALLERY



Lawatan rasmi daripada rombongan Pemuda MIC ke makmal Makmal Kejuruteraan Forensik (FEL) dan Makmal Penentuan Peralatan Sainifik (SECL).

*Official visit from MIC Youth to the Forensic Engineering Laboratory (FEL) and Scientific Equipment Calibration Laboratory (SECL).*



Pertemuan ringkas dan perbincangan dengan Interlab Comparison di makmal Makmal Penentuukuran Alat Penguji Gas (GCL) bersama dengan rombongan Institut Metrologi Kebangsaan Malaysia (NMIM) En. Hisam bin Sumiry, En. Fadli dan En. Khairul; dan, juga sesi lawatan ke makmal Makmal Pengesahan Peralatan Pencegahan Jatuh (FPETL), (GCL) dan Makmal Kejuruteraan Forensik (FEL).

*Brief visiting and discussion with Interlab Comparison at the Gas Detector Calibration Laboratory (GCL) laboratory joined with personnel from the National Metrology Institute Malaysia (NMIM) En. Hisam bin Sumiry, En. Fadli dan En. Khairul; including visit to the Fall Protective Equipment Testing Laboratory (FPETL) and Forensic Engineering Laboratory (FEL).*



**SUDUT GALERI FOTO**  
*PHOTO GALLERY*



Lawatan daripada UniKL MICET (Uni KL Institut Kimia dan Teknologi Kejuruteraan-Bio) Melaka ke makmal Pusat Penilaian dan Kawalan Teknologi Keselamatan dan Kesihatan Pekerjaan (OSHECT) NIOSH.  
*Visit from UniKL MICET (UniKL Malaysian Institute of Chemicals and Bio-Engineering Technology) Malacca to the OSHECT laboratory at NIOSH.*



Lawatan balas NIOSH ke Institute Metrologi Kebangsaan Malaysia (NMIM) bagi melihat potensi kerjasama diantara kedua-dua pihak.  
*NIOSH visits the National Metrology Institute of Malaysia (NMIM) to explore cooperation opportunities between both parties.*



### KLINIK KESIHATAN PEKERJAAN (KKP) - PERAKUAN DARI KLINIK PERUBATAN SWASTA.

Klinik Kesihatan Pekerjaan (KKP) telah didaftarkan sebagai klinik swasta di bawah Kementerian Kesihatan Malaysia pada 17 Mac 2021. NIOSH adalah badan yang mempelopori penubuhan klinik KKP. Objektif penubuhan klinik KKP ialah untuk menjaga kesihatan pekerja dan mencegah kejadian penyakit akibat pekerjaan.

Waktu Operasi:  
Isnin - Jumaat : 8:00 pagi hingga 5:00 petang  
Sabtu, Ahad, dan Cuti Umum: Tutup

### OCCUPATIONAL HEALTH CLINIC - CERTIFICATIONS FROM PRIVATE MEDICAL CENTRES.

Occupational Health Clinic was registered as a private clinic under the Ministry of Health Malaysia on 17 March 2021. NIOSH pioneered the establishment of these OH Clinics. The objective was to oversee the health of employees and to prevent work related diseases.

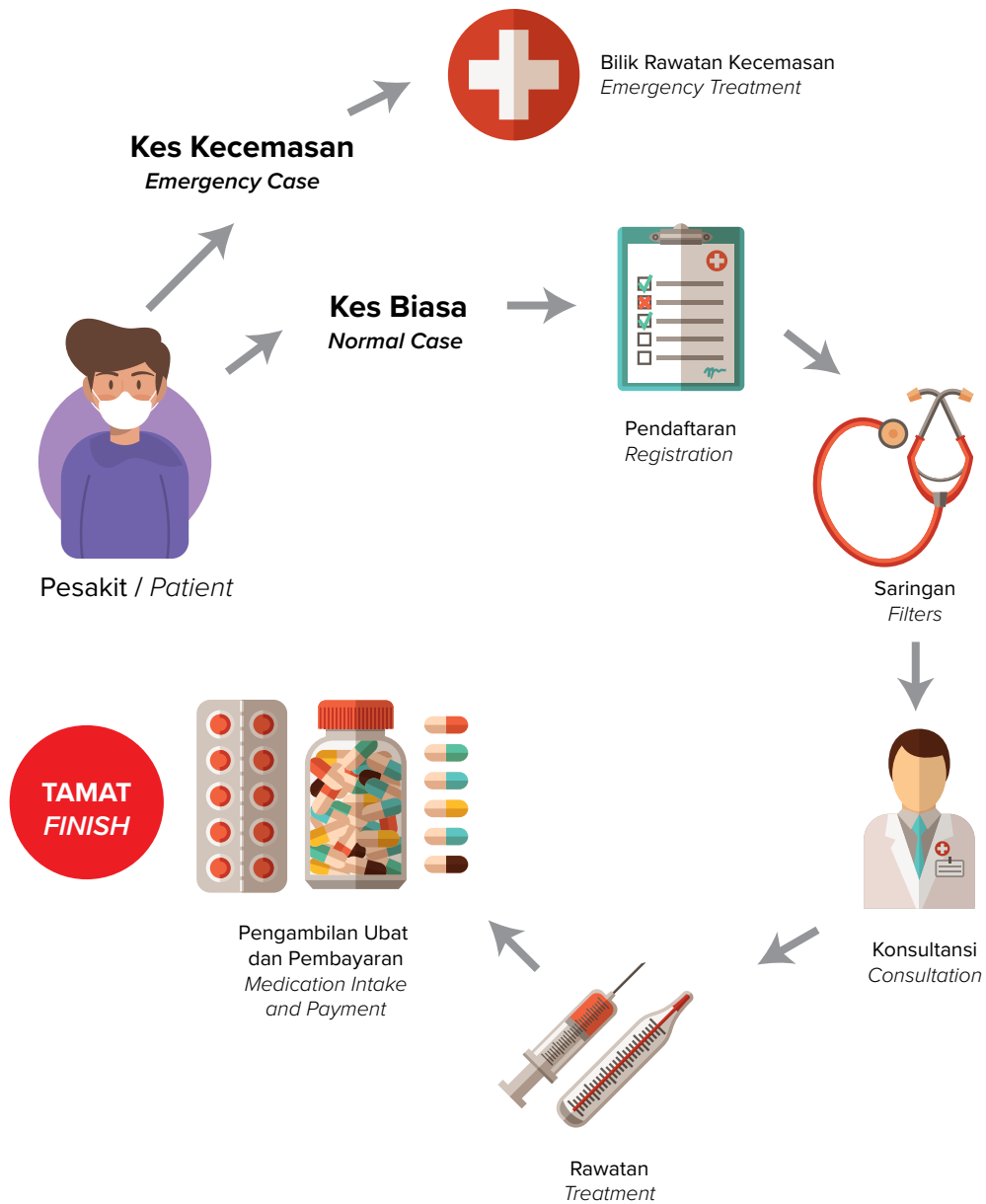
Clinic Hours:  
Monday - Friday : 8:00am to 5:00pm  
Saturday, Sunday and Public Holidays: Closed

PERKHIDMATAN YANG DITAWARKAN	SERVICES OFFERED
Pemeriksaan Kesihatan	Health Screening
Perundingan perubatan am dan rawatan	General medical consultation and treatment
Peperiksaan Perubatan Pra-pekerjaan: Ruang Terkurung	Pre-employment Medical Examination: Confined Space
Peperiksaan Perubatan Pra-pekerjaan: Orang Kompeten JKPP	Pre-employment Medical Examination: DOSH Competent Person
Peperiksaan Perubatan Pra-pekerjaan: Marin (Pelaut)	Pre-employment Medical Examination: Marine (Seafarer)
Pengurusan Kes Kesihatan Pekerjaan	Occupational Health Case Management
Laporan Perubatan Pampasan PERKESO	SOCSCO Compensation Medical Report
Ujian Saliva COVID-19	COVID-19 Saliva Test
Elektrokardiogram	ECG
Penyiasatan darah & air kencing	Blood & Urine investigation
Air kencing untuk Ujian Dadah	Urine for Drug Test
Nebulizer	Nebulizer
X-Ray dada	Chest X-Ray
Pengumpulan Darah	Blood Grouping

PERKHIDMATAN YANG DITAWARKAN (Dengan kerjasama Occupational Health Lab)	SERVICES OFFERED (In collaboration with Occupational Health Lab)
Ujian In-Body	In-Body test
Kecergasan Kesihatan U-Town	U-Town Health Fitness
VO2 max	VO2 max
Ujian tekanan	Stress test



CARTA ALIR PESAKIT DI OHC CLINIC  
PATIENT FLOW CHART AT OHC CLINIC



## PENGANUGERAHAN DAN PENGIKTIRAFAN BAHAGIAN KONSULTANSI, PENYELIDIKAN DAN PEMBANGUNAN (CRDD) 2021

Kejayaan NIOSH menerima Anugerah Emas ITEX 2021 di Pameran Antarabangsa Pengciptaan, Inovasi & Teknologi 2021 untuk Kajian Penggunaan Alat Audit Model CAI Bagi Keselamatan Sukan Sekolah (3SAT) Berasaskan Web. Peranan NIOSH dalam kejayaan ini ialah sebagai rakan industri yang berkerja sama dengan pakar teknikal Ts. Hj Mohd Esa Baruji. Beliau menyeliakan kajian Instrumentasi Indeks Pengurusan Risiko Keselamatan Sekolah di Malaysia bersama Universiti Pendidikan Sultan Idris. (UPSI).

## Visits to the OSH Hazard Evaluation and Control Technology (OSHECT)

NIOSH successfully received the ITEX 2021 Gold Award at the 2021 International Exhibition of Invention, Innovation & Technology for its Study in the Use of Web-Based CAI Model Audit Tool for School Sports Safety (3SAT). NIOSH's role in this success was as an industry partner working with technical expert Ts. Hj Mohd Esa Baruji. He supervised the Instrumentation Study of the School Safety Risk Management Index in Malaysia with Universiti Pendidikan Sultan Idris. (UPSI).



Anugerah 2021 Persatuan Pengamal Keselamatan dan Kesihatan Pekerjaan Malaysia (MOSHPA) - Platinum Perak untuk Pengurusan Keselamatan dan Kesihatan Pekerjaan (PKKP) dianugerahkan kepada NIOSH sebagai Pembolehkan KKP untuk Kerajaan.

*Malaysian Association of Occupational Safety and Health Practitioners (MOSHPA) 2021 Award - Silver Platinum for Occupational Safety and Health (OSH) Management was awarded to NIOSH as a Government OSH Enabler.*



Anugerah Presiden Kecemerlangan Keselamatan dan Kesihatan (KKP) MOSHPA 2021 - Anugerah Perak bagi Orang Paling Berpengaruh 2021 dalam bidang KKP telah dikurniakan kepada Encik Kharunnizam Mustapa.

*MOSHPA President's OSH Excellence Award 2021 - Silver for Most Influential People Award 2021 in OSH was conferred upon Encik Kharunnizam Mustapa.*



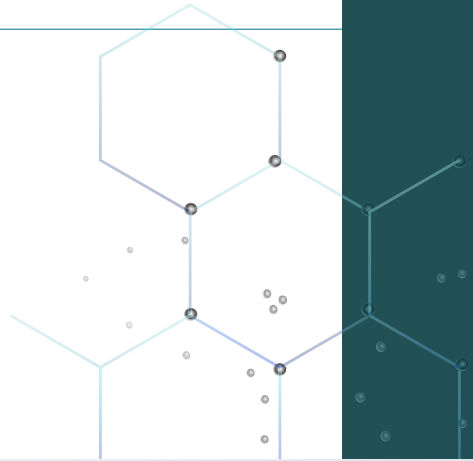
Penganugerah bagi makmal Penilaian dan Kawalan Teknologi Keselamatan dan Kesihatan Pekerjaan (OSHECT), anugerah ini diberikan kepada Pengerusi OSHECT En. Nor Hafsam Maghpor (Pakar Teknikal), ahli-ahli Kimia dan semua kakitangan makmal Analisa Bahan Kimia Berbahaya kepada Kesihatan (CHL):

- Anugerah Perak Makmal Institut Kimia Malaysia - kecermelangan berturut-turut selama 10 tahun (2011-2020) diberikan Makmal Analitika Hygien Industri (IHAL).
- Persijilan Peperiksaan (Bahagian 1 Peperiksaan Pemberian Perlesanan Institut Kimia Malaysia (LMIC) kepada Pn. Shafina Nadiawati binti Abdul, Ahli Kimia NIOSH.
- Anugerah Kecermelangan Institut Kimia Malaysia (IKM) 2021 dikurniakan kepada Makmal Analisa Bahan Kimia Berbahaya kepada Kesihatan (CHL) - dinamakan semula sebagai Makmal Analitika Hygien Industri (IHAL).
- Anugerah Kecermelangan Institut Kimia Malaysia (IKM) 2020 dikurniakan kepada Makmal Analisa Bahan Kimia Berbahaya kepada Kesihatan (CHL) - dinamakan semula sebagai Makmal Analitika Hygien Industri (IHAL).

Awards conferred upon the Occupational Safety and Health Hazard Evaluation and Control Technology Centre (OSHECT) laboratory. This award was given to OSHECT Chairman En. Nor Hafsam Maghpor (Technical Specialist), chemists and all staff of the Chemicals Hazardous to Health (CHL) Analysis laboratory:

- Institute of Chemistry Malaysia Laboratory Silver Award-10 consecutive years of excellence (2011-2020) to NIOSH Industrial Hygiene Analysis (IHAL) laboratory.
- Examination Certification (Part 1 of the Licentiate Malaysian Institute of Chemistry (LMIC) Examination) to Mrs. Shafina Nadiawati binti Abdul, NIOSH Chemist.
- Malaysian Institute of Chemistry Excellence Award 2021 conferred to the Chemicals Hazardous to Health Laboratory (CHL) - renamed as Industrial Hygiene Analysis Laboratory (IHAL).
- Malaysian Institute of Chemistry (IKM) Excellence Award 2020 under the Chemicals Hazardous to Health (CHL) Laboratory - renamed as Industrial Hygiene Analysis Laboratory (IHAL).









# AKTIVITI PENYEBARAN MAKLUMAT NIOSH 2021

*NIOSH INFORMATION  
DISSEMINATION ACTIVITIES  
2021*



### AKTIVITI PENYEBARAN MAKLUMAT NIOSH 2021

Aktiviti penyebaran maklumat merupakan salah satu fungsi utama NIOSH di dalam memperkenalkan dan memberi kesedaran kepada masyarakat berkaitan keselamatan dan kesihatan pekerjaan (KKP). Saban tahun pelbagai aktiviti disusun bagi memenuhi perancangan strategik NIOSH di dalam usaha membentuk budaya selamat dan sihat di tempat kerja bagi setiap sektor industri. Bagi memenuhi permintaan pelanggan di seluruh negara, aktiviti yang telah dijalankan adalah seperti seminar, pameran, ceramah, serta penerbitan pelbagai bahan bagi memperkenalkan dan meningkatkan pengetahuan KKP di kalangan masyarakat Malaysia. Bahan penerbitan ialah seperti buletin FYI, Poster, Buku, Jurnal KKP, Video Pendek OSHTalkStudio dan NIOSH Highlights. Pada tahun 2021, Malaysia masih lagi terkesan dengan pandemik COVID-19. Sedikit sebanyak telah mempengaruhi pencapaian aktiviti penyebaran maklumat NIOSH. Berikut adalah jumlah aktiviti yang telah berjaya dilaksanakan seperti yang ditunjukkan di Jadual 1.0.

### NIOSH INFORMATION DISSEMINATION ACTIVITIES 2021

*Information dissemination activities are one of the key functions of NIOSH in introducing and providing awareness to the Malaysian community regarding occupational safety and health (OSH). Every year a variety of activities are implemented to meet NIOSH's strategic planning and effort to create a safe and healthy culture in work places for each industry sector. To meet the demand of customers or clients across the country, activities such as seminars, exhibitions, talks were organised, as well as the publishing of various materials to introduce and increase the community's knowledge of OSH. Publication materials include FYI newsletters, posters, books, Journals OSH, OSHTalkStudio Short Videos and NIOSH Highlights. In 2021, Malaysia was still affected by the COVID-19 pandemic. To some extent, the situation had affected information dissemination activities. Table 1.0 below displays activities that were successfully implemented.*

**JADUAL 1.0 AKTIVITI PENYEBARAN MAKLUMAT**  
**TABLE 1.0 INFORMATION DISSEMINATION ACTIVITIES**

Bil. No.	Butiran Details	Bilangan Aktiviti Number of Activities	Bilangan Peserta Number of participants
1.	Seminar <i>Seminar</i>	75	14,611
2.	Ceramah <i>Speech</i>	138	-
3.	Pameran/Lawatan <i>Exhibition/Tour</i>	120	-
4.	Penerbitan <i>Publishing</i>	76	-

Antara aktiviti penyebaran maklumat dan promosi KKP yang berjaya dijalankan pada tahun 2021 ialah seperti berikut :  
Among the OSH information dissemination and promotion activities that were successfully carried out in 2021 are as follows:



**KESELAMATAN  
DAN KESIHATAN  
PEKERJAAN  
DI MASJID**

**LIVE STREAMING  
WEBINAR  
ONLINE**

**28hb  
Disember 2021  
8.30 am - 12.00 pm**

**f LIVE  
nioshmalaysia**

Dirasmikan oleh  
**YB Senator Tuan Haji Idris bin Ahmad**  
Menteri Di Jabatan Perdana Menteri (Hal Ehwal Agama)  
Jabatan Perdana Menteri

Anjuran Jabatan Kemajuan Islam Malaysia (JAKIM) dengan sokongan Institut Keselamatan dan Kesihatan Pekerjaan Negara (NIOSH)

Program WEBINAR – Keselamatan dan Kesihatan Pekerjaan di Masjid – Program JAKIM dengan sokongan NIOSH  
*WEBINAR programme - Occupational Safety and Health in Mosques - A JAKIM programme with support from NIOSH*



**WANITA DALAM  
KKP** KESELAMATAN DAN  
KESIHATAN PEKERJAAN

**23&24 DIS 2021**

NIOSH PEJABAT WILAYAH SELATAN  
(DOHOR BAHRU)

**PERCUMA  
UNTUK AHLI  
PUSPANITA  
(SESI DALAM TALIAN SAHAJA)**

Untuk Pendaftaran  
<https://edafter.niosh.net.my/puspanita>

Dianjurkan Oleh:  
**YBhg. Datin Harlina Binti Hashim**  
Pengerusi  
PUSPANITA Kementerian Sumber Manusia

**DEMONSTRASI  
MENYELAMAT DI  
TEMPAT TINGGI  
OLEH  
SHAM VISA**

**Topik yang akan dibincangkan**

Topik 1 : Wanita Sebagai Pakar KKP (Pelatih, Pemeriksa, Perunding, Penyelidik, Juruaudit)  
Wanita Sebagai Pengurus KKP Bagi Pengamal HR

Topik 2 : Wanita Dalam Industri Higen

Topik 3 : Wanita Dalam Ergonomik

Topik 4 : (Sesi Demonstrasi)  
Wanita Dalam Keselamatan Pekerjaan  
Capaian Tali (kaedah menyelamat 'rope and rescue')

Topik 5 : Wanita Dalam Kesihatan Pekerjaan  
(Doktor Perubahan dengan OHG dan CMIA)

Topik 6 : Wanita sebagai Penguatkuasa KKP

Topik 7 : Wanita dalam Pengurusan Sistem KKP

Topik 8 : Wanita dalam KKP

Untuk Maklumat Lanjut  
07-599 1200  
019-229 9528  
017-710 1280  
019 663 0839 (PUSPANITA)

Dengan Kerjasama

Wanita Dalam Keselamatan dan Kesihatan Pekerjaan (KKP) – Program Kerjasama NIOSH dan Pusanita Kementerian Sumber Manusia (KSM)

*Women in Occupational Safety and Health (OSH) - NIOSH and Ministry of Human Resources Pusanita KSM Cooperation Program*

**WEBINAR**

**RMKe-12: KESELAMATAN & KESIHATAN PEKERJA KE ARAH NEGARA MAKMUR, INKLUSIF DAN MAMPAN**

27 OKTOBER 2021 (RABU) | 08.30 AM - 12.30 PM

Sijil penyertaan disediakan  
 Terbuka kepada semua warganera Malaysia

Platform : **zoom**

**PENYERTAAN ADALAH TERHAD**  
 Tarikh tutup pendaftaran : 25 Oktober 2021 (Isnin)

WEBINAR RMKe-12: Keselamatan dan Kesihatan Pekerja ke arah negara makmur, inklusif dan mampan.  
 WEBINAR RMKe-12: Occupational Safety and Health towards a prosperous, inclusive and sustainable nation.

Program NIOSH Lawatan Secara Maya - Makmal Pengesahan Peralatan Perlindungan Pernafasan (DML)  
 NIOSH Virtual Tour Program - Dust Mask Laboratory

**NIOSH VIRTUAL TOUR**

DUST MASK LABORATORY (DML)

26 OCTOBER 2021 11.00 AM

**LIVE**

nioshmalaysia



Anticipate, prepare and respond to the crisis

**FREE SEMINAR  
WORLD OSH DAY 2021  
(INVEST NOW IN RESILIENT OSH SYSTEMS)**

**28 April 2021**



**Jimmy Quinn**  
President  
Institution of Occupational Safety And Health (IOSH)



**Prof Madya Dr. Mohd Rafee Baharudin**  
Director, Occupation Safety & Health, UPM



**Azizie Hj Hamid**  
Manager, Training Division  
NIOOSH Certification Sdn Bhd



**Shairizal Badzri**  
Head Strategy and Performance, Petronas

**RSVP**



**SCAN ME**

Seminar Hari Keselamatan dan Kesihatan Pekerjaan (KKP) Sedunia 2021 -  
 Labur Sekarang Dalam Sistem KKP yang Berdaya Tahan Lasak.  
 World Occupational Safety and Health Day 2021 - Invest Now in Resilient OSH Systems.



Antara buku terbitan NIOSH yang berjaya di terbitkan pada tahun 2021 ialah seperti berikut :

*Among the books published by NIOSH and successfully released in 2021 are as follows:*



Keselamatan dan Kesihatan Pekerjaan (KKP) di  
Malaysia: Menjamin Masa Hadapan  
*Occupational Safety and Health (OSH) in Malaysia:  
Securing the Future*



Buku Panduan Peperiksaan Doktor Kesihatan  
Pekerjaan (OHD)  
*Guide Book for the Occupational Health Doctor  
(OHD) Examination*



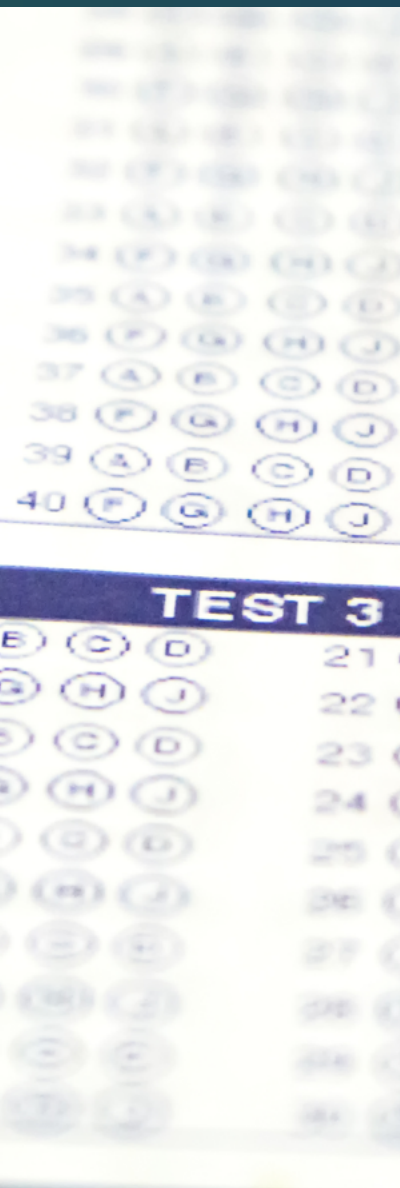
NIOSH Research Questionnaire : A Practical Guide  
for Occupational Safety and Health Practitioners.





# PEPERIKSAAN DAN PENILAIAN

*EXAMINATION AND  
ASSESSMENT*



## AKTIVITI PEPERIKSAAN DAN PENILAIAN

Bahagian Peperiksaan dan Persijilan bertanggungjawab melaksanakan peperiksaan perundangan dan bukan perundangan. Aktiviti peperiksaan perundangan adalah di bawah kawalan dan pemantauan Lembaga Peperiksaan Kompetensi Keselamatan dan Kesihatan Pekerjaan (LPKKKP). Manakala aktiviti peperiksaan bukan perundangan merupakan peperiksaan yang dilaksanakan bagi program-program di bawah kawalan dan pemantauan Jawatankuasa Peperiksaan NIOSH (JPN).

Berikut merupakan aktiviti-aktiviti peperiksaan dan penilaian yang dilaksanakan oleh Bahagian Peperiksaan dan Persijilan:

**Jadual 1 : Aktiviti Peperiksaan dan Persijilan**

<b>Aktiviti Peperiksaan</b> <i>Examination Activities</i>	<b>Jumlah Program</b> <i>Total Programmes</i>	<b>Jumlah Calon</b> <i>Total Candidates</i>
Peperiksaan Kompetensi Perundangan <i>Regulatory Competency Examinations</i>	401	14,193
Peperiksaan Kompetensi Bukan Perundangan <i>Non-regulatory Competency Examinations</i>	1,703	24,560
Peperiksaan Jurulatih <i>Trainer Examinations</i>	69	830
<b>Jumlah / Total</b>	<b>2,173</b>	<b>39,583</b>

Tahun 2021 menunjukkan sebanyak 2,173 aktiviti peperiksaan dan penilaian telah dijalankan dengan jumlah calon seramai 39,583 calon.

Peperiksaan Pegawai Keselamatan dan Kesihatan (SHO) merupakan salah satu peperiksaan perundangan di bawah kawalan dan pemantauan Lembaga Peperiksaan Kompetensi Keselamatan dan Kesihatan Pekerjaan (LPKKKP). Peperiksaan ini telah dijalankan sebanyak tujuh (7) kali setahun di beberapa lokasi seperti Bandar Baru Bangi, Kuantan, Kelantan, Terengganu, Pulau Pinang, Bintulu, Melaka, Kota Kinabalu, Labuan, Miri, Sandakan, Kuching dan Johor. Jumlah calon yang menduduki peperiksaan ini adalah seramai 3,813 calon.

## EXAMINATION AND ASSESSMENT ACTIVITIES

The Examination and Certification Division is entrusted to conduct regulatory and non-regulatory examinations. Regulatory examinations are under the authority and monitoring of the Examination Board, while non-regulatory examinations consist of those conducted for NIOSH-administrated programmes.

Listed below are the examination and assessment activities conducted by the Examination and Certification Division:

*Table 1: Examination and Assessment Activities*

*In year 2021, a total of 2,173 examination and assessment activities were conducted involving 39,583 candidates.*

*The Safety and Health Officer (SHO) Examination is one of the regulatory examinations held under the authority and monitoring of the Examination Board. This exam was conducted seven (7) times a year at various locations such as Bandar Baru Bangi, Kuantan, Kelantan, Terengganu, Penang, Bintulu, Melaka, Kota Kinabalu, Labuan, Miri, Sandakan, Kuching and Johor. The total number of candidates for this exam amounted to 3,813 candidates.*





Jadual 2 menunjukkan jenis-jenis peperiksaan perundangan dan bukan perundangan yang telah dilaksanakan sepanjang tahun 2021.

Table 2 shows the types of regulatory and non-regulatory examinations conducted throughout 2021.

**Jadual 2** – Jenis Peperiksaan / Penilaian dan Jumlah Calon

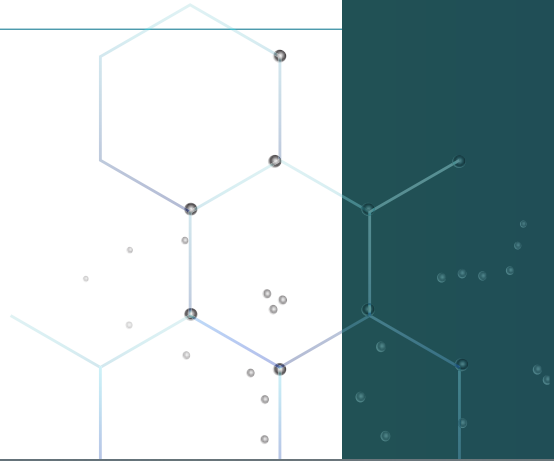
**Table 2** – Types of Examination / Assessment and Number of Candidates

Bil. No.	Jenis Peperiksaan / Penilaian Examination / Assessment Type	Jumlah calon Total No. of Candidates	Bilangan peperiksaan No. of Exams
1	Pegawai Keselamatan Dan Kesihatan (SHO) Safety and Health Officer (SHO)	3,813	10
2	Penyelia Keselamatan Tapak Bina (SSS) – Kertas 1 Site Safety Supervisor (SSS) – Paper 1	2,361	15
3	Penyelia Keselamatan Tapak Bina (SSS) – Kertas 2 Site Safety Supervisor (SSS) – Paper 2	4,036	12
4	Operator Kren Crane Operator	720	96
5	Penguji Gas Bertauliah Dan Penyelia Kemasukan Bagi Ruang Terkurung (AGTES) Authorised Gas Tester and Entry Supervisor (AGTES)	2,643	252
6	Penaksir Kualiti Udara Dalaman (IAQ) Indoor Air Quality (IAQ) For Assessor	17	2
7	Penaksir Risiko Bising (NRA) Noise Risk Assessment (NRA)	47	2
8	Penilaian Risiko Kimia Kepada Kesihatan (CHRA) Chemical Health Risk Assessment (CHRA)	103	3
9	Juruteknik Higien Industri 1 - Pemonitoran Kimia (HT1) Industrial Hygiene Technician 1 - Chemical Monitoring (HT1)	22	1
10	Juruteknik Higien Industri 2 - Pemeriksaan, Pengujian Dan Penilaian Peralatan Kawalan Kejuruteraan (HT2) Industrial Hygiene Technician 2 - Examination, Testing and Assessment of Engineering Control Equipment (HT2)	22	1
11	Doktor Kesihatan Pekerjaan (OHD) Occupational Health Doctor (OHD)	409	7
12	Jururawat Kesihatan Pekerjaan (OHN) Occupational Health Nurse (OHN)	21	4

<b>Bil. No.</b>	<b>Jenis Peperiksaan / Penilaian Examination / Assessment Type</b>	<b>Jumlah calon Total No. of Candidates</b>	<b>Bilangan peperiksaan No. of Exams</b>
13	Penaksir Hilang Upaya Perubatan Bertauliah (CMIA) <i>Certified Medical Impairment Assessor (CMIA)</i>	79	1
14	Pengendalian Selamat Trak Angsun (SHFT) <i>Safe Handling of Forklift Truck (SHFT)</i>	27	3
15	Orang Yang Dibenarkan Masuk Dan Orang Menjaga Bagi Ruang Terkurung (AESP) <i>Authorised Entrant and Standby Person (AESP)</i>	22,830	1,587
16	Latihan Keselamatan Bagi Kemasukan Ke Ruangan Inert (IET) <i>Inert Space Entry Training (IET)</i>	24	2
17	Asas Pertolongan Cemas Pekerjaan (BOFA) <i>Basic Occupational First Aid (BOFA)</i>	585	21
18	Bekerja Selamat Di Tempat Tinggi (WAH) <i>Working Safely At Height (WAH)</i>	772	68
19	Jet Air Tekanan Tinggi (HPWJ) <i>High Pressure Water Jet (HPWJ)</i>	107	7
20	Asas Rigging dan Slings (BRS) <i>Basic Rigging and Slings (BRS)</i>	71	5
21	Individu Terlatih Dalam Ergonomik Untuk Penilaian Risiko Ergonomik (ERA 1) <i>Ergonomic Trained Person for Initial ERA (ERA 1)</i>	33	4
22	Individu Terlatih Dalam Ergonomik Untuk Penilaian Risiko Ergonomik Lanjutan (ERA 2) <i>Ergonomic Trained Person for Advanced ERA (ERA 2)</i>	11	1
23	Jurulatih Ruang Terkurung (CST) <i>Confined Space Trainer (CST)</i>	8	2
24	Jurulatih Keselamatan dan Kesihatan Pembinaan (CHST) <i>Construction Safety and Health Trainers (CSHT)</i>	24	4
25	Latihan Untuk Jurulatih (TTT1) <i>Train The Trainer (TTT1)</i>	718	57



Bil. No.	Jenis Peperiksaan / Penilaian <i>Examination / Assessment Type</i>	Jumlah calon <i>Total No. of Candidates</i>	Bilangan peperiksaan <i>No. of Exams</i>
26	Pengurusan Latihan Untuk Perniagaan (TTT2) <i>Training Management for Business (TTT2)</i>	15	2
27	Pasport Keselamatan NIOSH Prasarana - Program Jurulatih (TTT-NPSP) <i>NIOSH Prasarana Safety Passport - Trainer's Program (TTT-NPSP)</i>	13	1
28	Pasport Keselamatan Operasi Lebuh Raya - Program Jurulatih (TTT-EOSP) <i>Expressway Operations Safety Passport - Trainer's Program (TTT-EOSP)</i>	20	1
29	Permit Pekerjaan Tapakbina Bagi Penerimaan Kebenaran Dari Pihak Berkuasa (TTT-CWP-RAA) <i>Construction Work Permit for Receiving Authorised Authority (TTT-CWP-RAA)</i>	22	1
30	Pasport Keselamatan Cenviro - Program Jurulatih (TTT-CSP) <i>Cenviro Safety Passport - Trainer's Program (TTT-CSP)</i>	10	1
<b>Jumlah / Total</b>		<b>39,583</b>	<b>2,173</b>





## **BAHAGIAN PENGURUSAN KUALITI (QMD)**

*QUALITY MANAGEMENT  
DIVISION (QMD)*

## **SISTEM PENGURUSAN (QMS, OSHMS, EMS, LMS)**

*MANAGEMENT SYSTEM  
(QMS, OSHMS, EMS, LMS)*



**SISTEM PENGURUSAN KUALITI, KESELAMATAN DAN KESIHATAN PEKERJAAN, ALAM SEKITAR DAN SKIM AKREDITASI MAKMAL MALAYSIA**

Sistem Pengurusan Kualiti (QMS) (MS ISO 9001:2015) NIOSH telah melaksanakan Audit Dalaman mengikut Standard ISO 9001:2015 seiring dengan keperluan persijilan berkualiti (QMS). Audit Dalaman QMS telah diadakan pada 20 September hingga 7 Oktober 2021 di Pejabat Wilayah dari 11 Oktober hingga 15 Oktober 2021 di Ibu Pejabat NIOSH. Audit ini juga telah melibatkan 12 Pejabat Wilayah dan juga Ibu Pejabat di Bangi. Pejabat Wilayah di Tawau dan Sandakan terpaksa dibatalkan disebabkan Perintah Kawalan Pergerakan Diperketatkan (PKPD) di kawasan-kawasan tersebut. Semua pihak yang terlibat telah menunjukkan komitmen yang tinggi semasa proses audit dijalankan. Berdasarkan analisa penemuan audit, tahap keakuratan dan keberkesanan pelaksanaan QMS di NIOSH adalah baik dan memenuhi keperluan minimum MS ISO 9001:2015.

**Jadual 1: Pelaksanaan Audit Dalaman QMS ISO 9001:2015 Tahun 2021**

SIRI AUDIT AUDIT SERIES	TARIKH DATE	LOKASI LOCATION
2021	20 September 2021 20 September 2021	Pejabat Wilayah Sarawak (Miri) : SWRO-MRI <i>Sarawak Regional Office (Miri) : SWRO-MRI</i>
		Pejabat Wilayah Sabah (Sandakan) : SBRO-SDK <i>Sabah Regional Office (Sandakan) : SBRO-SDK</i>
		Pejabat Wilayah Sabah (Tawau) : SBRO-TWU <i>Sabah Regional Office (Tawau) : SBRO-TWU</i>
	21 - 22 September 2021 21 - 22 September 2021	Pejabat Wilayah Sarawak (Kuching) : SWRO-KCH <i>Sarawak Regional Office (Kuching) : SWRO-KCH</i>
		Pejabat Wilayah Sabah (Kota Kinabalu) : SBRO-KK <i>Sabah Regional Office (Kota Kinabalu) : SBRO-KK</i>
	21 September 2021 21 September 2021	Pejabat Wilayah Sarawak (Bintulu) : SWRO-BTU <i>Sarawak Regional Office (Bintulu) : SWRO-BTU</i>
		Pejabat Wilayah Sabah (Labuan) : SBRO-LBN <i>Sabah Regional Office (Labuan) : SBRO-LBN</i>
	22 September 2021 22 September 2021	Pejabat Wilayah Sarawak (Kapit) : SWRO-KPT <i>Sarawak Regional Office (Kapit) : SWRO-KPT</i>
	23 September 2021 23 September 2021	Pejabat Wilayah Selatan (Melaka) : SRO-MLK <i>Southern Regional Office (Melaka) : SRO-MLK</i>

**QUALITY MANAGEMENT SYSTEM, OCCUPATIONAL SAFETY AND HEALTH, ENVIRONMENT, AND LABORATORY ACCREDITATION SCHEME MALAYSIA**

Quality Management System (QMS) (MS ISO 9001:2015) at NIOSH was conducted an Internal Audit following Standard ISO 9001:2015 that is aligned to the need of having quality certification (QMS). The QMS Internal Audit was held from 20 September to 7 October 2021 at various Regional Offices while from 11 October until 15 October 2021 at NIOSH Headquarters. The audit involved 12 Regional Offices across the country and NIOSH Headquarters in Bangi. Audits at the Regional Office Tawau and Sandakan were canceled due to the Enhanced Movement Control Order (EMCO) in both cities. All personnel and departments participating were committed to the requirements of the audit process. The results of the audit evidenced good practices in the conformity levels and effectiveness of implementing QMS. Hence, the minimum requirements of MS ISO 9001:2015 were achieved.

**Table 1: Implementation of Internal Audit QMS ISO 9001:2015 Year 2021**

SIRI AUDIT AUDIT SERIES	TARIKH DATE	LOKASI LOCATION
2021	27 September 2021 27 September 2021	Pejabat Wilayah Selatan (Pengerang) : SRO-PRG Southern Regional Office (Pengerang) : SRO-PRG
	28 - 29 September 2021 28 - 29 September 2021	Pejabat Wilayah Selatan (Johor Bahru) : SRO-JBU Southern Regional Office (Johor Bahru) : SRO-JBU
	4 - 5 Oktober 2021 4 - 5 October 2021	Pejabat Wilayah Utara (Pulau Pinang) : NRO-PNG Northern Regional Office (Pulau Pinang) : NRO-PNG
	5 - 6 Oktober 2021 5 - 6 October 2021	Pejabat Wilayah Pantai Timur (Kerteh) : ECRO-KTH East Coast Regional Office (Kerteh) : ECRO-KTH
	4 Oktober 2021 4 October 2021	Pejabat Wilayah Pantai Timur (Kota Bharu) : ECRO-KBH East Coast Regional Office (Kota Bharu) : ECRO-KBH
	6 Oktober 2021 6 October 2021	Pejabat Wilayah Utara (Manjung) : NRO-MJG Northern Regional Office (Manjung) : NRO-MJG
	7 Oktober 2021 7 October 2021	Pejabat Wilayah Pantai Timur (Kuantan) : ECRO-KTN East Coast Regional Office (Kuantan) : ECRO-KTN

Intertek Certification International Sdn Bhd telah menjalankan audit Persijilan MS ISO 9001:2015 secara serentak dengan audit pengawasan Sistem Pengurusan Berkualiti (QMS), Sistem Pengurusan Keselamatan dan Kesihatan Pekerjaan (OSHMS) dan Sistem Pengurusan Alam Sekitar (EMS) pada 20 - 24 Disember 2021 di pejabat-pejabat berikut:

- Ibu Pejabat NIOSH Bandar Baru Bangi (HQ)
- Pejabat Wilayah Pantai Timur Kerteh (ECRO-KTH)
- Pejabat Wilayah Selatan Johor Bahru (SRO-JBU)
- Pejabat Wilayah Sabah Tawau (SBRO-TWU)
- Pejabat Wilayah Sabah Kota Kinabalu (SBRO-KK)
- Pejabat Wilayah Sarawak Bintulu (SWRO-BTU)
- Pejabat Wilayah Utara Pulau Pinang (NRO-PNG)

Secara keseluruhan, pihak badan persijilan berpuas hati dengan tahap keakuratan dan keberkesanan pelaksanaan QMS, OSHMS dan EMS di NIOSH Malaysia.

*Intertek Certification International Sdn Bhd conducted a certification audit MS ISO 9001:2015 concurrently with a monitoring audit for Quality Management System (QMS), Occupational Safety and Health Management System (OSHMS) and Environmental Management System (EMS) from 20 - 24 December 2021 at the following offices:*

- *NIOSH Headquarters Bandar Baru Bangi*
- *East Coast Regional Office Kerteh (ECRO-KTH)*
- *Southern Regional Office Johor Bahru (SRO-JBU)*
- *Sabah Regional Office Tawau (SBRO-TWU)*
- *Sabah Regional Office Kota Kinabalu (SBRO-KK)*
- *Sarawak Regional Office Bintulu (SWRO-BTU)*
- *Northern Regional Office Penang (NRO-PNG)*

*Overall, the certification body was satisfied with the level of conformity and effectiveness of implementing QMS, OSHMS and EMS at NIOSH Malaysia.*



### Sistem Pengurusan Keselamatan dan Kesehatan Pekerjaan (ISO 45001:2018)

Pensijilan bagi Sistem Pengurusan Keselamatan dan Kesehatan Pengurusan juga telah dilaksanakan di ibu pejabat NIOSH Bandar Baru Bangi. Audit Dalaman OSHMS telah diadakan pada 20 September hingga 7 Oktober 2021 di pejabat-pejabat wilayah dan 11 Oktober hingga 15 Oktober 2021 di Ibu Pejabat. Audit ini juga melibatkan 12 Pejabat Wilayah dan juga Ibu Pejabat. Pejabat Wilayah di Tawau dan Sandakan terpaksa dibatalkan disebabkan Perintah Kawalan Pergerakan Diperketatkan (PKPD) di kawasan-kawasan tersebut. Semua pihak yang terlibat telah menunjukkan komitmen yang tinggi semasa proses Audit dijalankan. Berdasarkan analisa penemuan audit, tahap keakuran dan keberkesanan pelaksanaan OSHMS di NIOSH adalah baik dan memenuhi keperluan minimum MS ISO 45001:2018 seperti jadual dibawah ini:

### Occupational Safety and Health Quality Management System (OSHMS) (ISO 45001:2018)

*Certification for the Occupational Safety and Health Quality Management System (OSHMS) was conducted at NIOSH Headquarters Bandar Baru Bangi. The Internal Audit was held from 11 October to 15 October 2021. As for Regional Offices, the internal audit was done from 20 September to 7 October 2021. The audit involved 12 regional offices and the headquarters. Audits at the Tawau and Sandakan regional offices were canceled due to the Enhanced Movement Control Order (EMCO) in those cities. All personnel were committed the activities of the audit process. In referring to the audit findings, the levels of conformity and the effectiveness of implementing OSHMS at NIOSH is good and fulfilled the minimum satisfactory requirements of MS ISO 45001:2018 as shown in the Table below:*

**Jadual 2: Pelaksanaan Audit Dalaman ISO 45001:2018** *Internal Audit ISO 45001:2018 for the Year 2021*  
bagi tahun 2021

<b>SIRI AUDIT AUDIT SERIES</b>	<b>TARIKH DATE</b>	<b>LOKASI LOCATION</b>
2021	20 September 2021 20 September 2021	Pejabat Satelit Sandakan (SBRO-SDK) <i>Sandakan Satellite Office (SBRO-SDK)</i>
		Pejabat Wilayah Sabah (Tawau) : SBRO-TWU <i>Sabah Regional Office (Tawau) : SBRO-TWU</i>
		Pejabat Wilayah Sarawak (Miri) : SWRO-MRI <i>Sarawak Regional Office (Miri) : SWRO-MRI</i>
	21 – 22 September 2021 21 – 22 September 2021	Pejabat Wilayah Sarawak (Kuching) : SWRO-KCH <i>Sarawak Regional Office (Kuching) : SWRO-KCH</i>
		Pejabat Wilayah Sabah (Kota Kinabalu) : SBRO-KK <i>Sabah Regional Office (Kota Kinabalu) : SBRO-KK</i>
	21 September 2021 21 September 2021	Pejabat Wilayah Sarawak (Bintulu) : SWRO-BTU <i>Sarawak Regional Office (Bintulu) : SWRO-BTU</i>
		Pejabat Wilayah Sabah (Labuan) : SBRO-LBN <i>Sabah Regional Office (Labuan) : SBRO-LBN</i>
	22 September 2021 22 September 2021	Pejabat Wilayah Sarawak (Kapit) : SWRO-KPT <i>Sarawak Regional Office (Kapit) : SWRO-KPT</i>
	23 September 2021 23 September 2021	Pejabat Wilayah Selatan (Melaka) : SRO-MLK <i>Southern Regional Office (Melaka) : SRO-MLK</i>
	27 September 2021 27 September 2021	Pejabat Wilayah Selatan (Pengerang) : SRO-PRG <i>Southern Regional Office (Pengerang) : SRO-PRG</i>
	28 – 29 September 2021 28 – 29 September 2021	Pejabat Wilayah Selatan (Johor Bahru) : SRO-JBU <i>Southern Regional Office (Johor Bahru) : SRO-JBU</i>
	4 – 5 Oktober 2021 4 – 5 October 2021	Pejabat Wilayah Utara (Pulau Pinang) : NRO-PNG <i>Northern Regional Office (Pulau Pinang) : NRO-PNG</i>
	5 – 6 Oktober 2021 5 – 6 October 2021	Pejabat Wilayah Pantai Timur (Kerteh) : ECRO-KTH <i>East Coast Regional Office (Kerteh) : ECRO-KTH</i>
	4 Oktober 2021 4 October 2021	Pejabat Wilayah Pantai Timur (Kota Bharu) : ECRO-KBH <i>East Coast Regional Office (Kota Bharu) : ECRO-KBH</i>
	6 Oktober 2021 6 October 2021	Pejabat Wilayah Utara (Manjung) : NRO-MJG <i>Northern Regional Office (Manjung) : NRO-MJG</i>
7 Oktober 2021 7 October 2021	Pejabat Wilayah Pantai Timur (Kuantan) : ECRO-KTN <i>East Coast Regional Office (Kuantan) : ECRO-KTN</i>	

**NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH (NIOSH)**  
*Institut Keselamatan dan Kesehatan Pekerjaan Negara*

Intertek Certification International Sdn Bhd telah menjalankan audit Persijilan semula MS ISO 45001:2018 secara serentak dengan audit pengawasan Sistem Pengurusan Berkualiti (QMS), Sistem Pengurusan Keselamatan dan Kesehatan Pekerjaan (OSHMS) dan Sistem Pengurusan Alam Sekitar (EMS) pada 20 - 24 Disember 2021 di pejabat-pejabat berikut:

- Ibu Pejabat NIOSH Bandar Baru Bangi (HQ)
- Pejabat Wilayah Pantai Timur Kerteh (ECRO-KTH)
- Pejabat Wilayah Selatan Johor Bahru (SRO-JBU)
- Pejabat Wilayah Sabah Tawau (SBRO-TWU)
- Pejabat Wilayah Sabah Kota Kinabalu (SBRO-KK)
- Pejabat Wilayah Sarawak Bintulu (SWRO-BTU)
- Pejabat Wilayah Utara Pulau Pinang (NRO-PNG)

Secara keseluruhan, pihak badan persijilan berpuas hati dengan tahap keakuran dan keberkesanan pelaksanaan QMS, OSHMS dan EMS di NIOSH Malaysia.

*Intertek Certification International Sdn Bhd conducted a recertification audit MS ISO 45001:2018 concurrently with a monitoring audit for Quality Management System (QMS), Occupational Safety and Health Management System (OSHMS) and Environmental Management System (EMS) from 20 - 24 December 2021 at the following offices:*

- *NIOSH Headquarters Bandar Baru Bangi*
- *East Coast Regional Office Kerteh (ECRO-KTH)*
- *Southern Regional Office Johor Bahru (SRO-JBU)*
- *Sabah Regional Office Tawau (SBRO-TWU)*
- *Sabah Regional Office Kota Kinabalu (SBRO-KK)*
- *Sarawak Regional Office Bintulu (SWRO-BTU)*
- *Northern Regional Office Penang (NRO-PNG)*

*Overall, the certification body was satisfied with the level of conformity and effectiveness of implementing QMS, OSHMS and EMS at NIOSH Malaysia.*



**Rajah 2: Sijil Pensijilan OSHMS (ISO 45001:2018)**  
**Figure 2: OSHMS Certification Certificate (ISO 45001: 2018)**

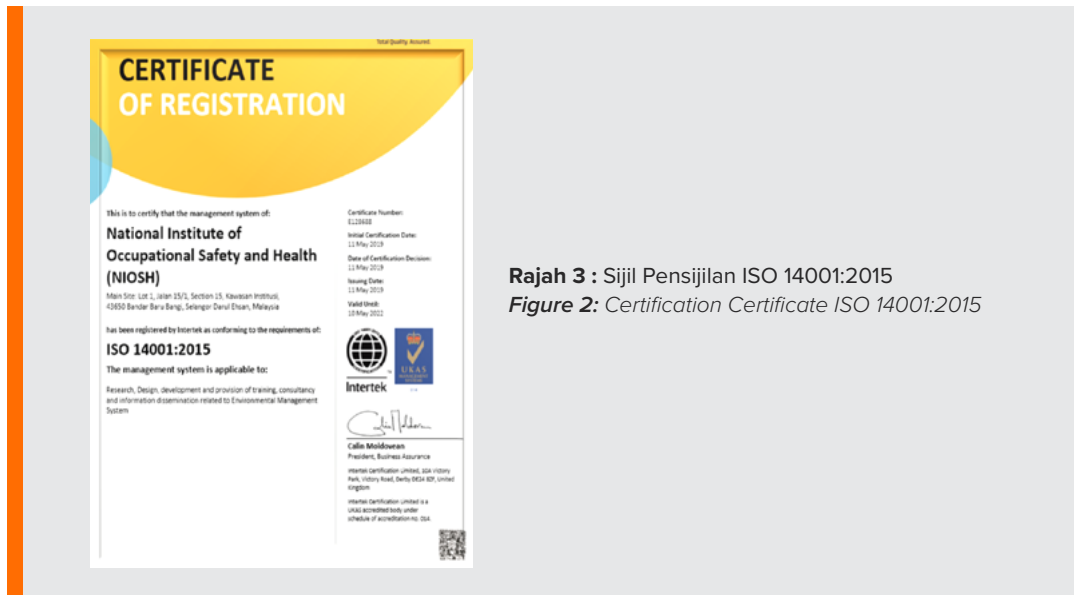


### Sistem Pengurusan Alam Sekitar (EMS) (14001:2015)

Intertek Certification International Sdn Bhd telah menjalankan audit pengawasan ISO 14001:2015 di ibu pejabat NIOSH Bandar Baru Bangi, Pejabat Wilayah Pantai Timur Kerteh (ECRO-KTH), dan Pejabat Wilayah Selatan Johor (SRO-JBU) bermula pada 20 hingga 24 Disember 2021.

### Environmental Management System (EMS) (14001: 2015)

Intertek Certification International Sdn Bhd conducted an ISO 14001: 2015 surveillance audit at NIOSH Bandar Baru Bangi headquarters, Kerteh East Coast Regional Office (ECRO-KTH), and Johor Southern Regional Office (SRO-JBU) from 20 to 24 December 2021.



Rajah 3 : Sijil Pensijilan ISO 14001:2015

Figure 2: Certification Certificate ISO 14001:2015

### **Program Keselamatan dan Kesihatan Pekerjaan dan Alam Sekitar**

NIOSH telah melaksanakan program-program Keselamatan dan Kesihatan Pekerjaan serta Kelestarian Alam Sekitar untuk menyediakan persekitaran kerja yang selamat, sihat dan dan terhindar dari pencemaran alam sekitar di premis NIOSH. Antara program dan aktiviti yang dilaksanakan ialah:

#### **1. Mesyuarat Jawatankuasa Keselamatan dan Kesihatan Pekerjaan, Alam Sekitar dan Lalu Lintas Jalan Raya NIOSH (NOSHERTCOM).**

Mesyuarat ini dilaksanakan setiap 3 bulan sekali mengikut pematuhan perundangan Keselamatan dan Kesihatan Pekerjaan (Jawatankuasa Keselamatan dan Kesihatan Pekerjaan) Peraturan 1996. Pelbagai isu berkaitan dengan keselamatan dan kesihatan pekerjaan, alam sekitar dan lalu lintas jalan raya dibincangkan di dalam mesyuarat ini seperti laporan pemeriksaan tempat kerja, laporan siasatan kemalangan, laporan alam sekitar, laporan keselamatan lalu lintas jalan raya, laporan kesihatan pekerjaan, penilaian objektif, sasaran dan program serta lain – lain perkara yang berkaitan dengan KKP, alam sekitar dan lalu lintas jalan raya bagi mencapai objektif mesyuarat. Mesyuarat NOSHERTCOM ini dijalankan hanya di Ibu Pejabat NIOSH kerana melibatkan ketiga- tiga sistem pengurusan iaitu Sistem ISO 45001:2018, ISO 14001:2015 dan ISO 39001:2012. Mesyuarat ini telah dilaksanakan secara fizikal dan maya dengan pematuhan SOP yang telah ditetapkan oleh Majlis Keselamatan Negara (MKN) dan NIOSH.

### **Occupational Safety and Health and the Environment Programme**

*NIOSH implemented Occupational Safety & Health and Sustainability Environment Programmes to provide a working environment that is safe, healthy and free from environmental pollution at NIOSH premises. Among the programs and activities that were implemented are:*

#### **1. NIOSH Occupational Safety and Health, the Environment and Road Traffic Committee Meeting (NOSHERTCOM)**

*This meeting is held every 3 months in accordance with Occupational Safety and Health Legislation Compliance (OSH Committee) Regulations of 1996. Various issues related to OSH, the environment and road traffic are discussed in this meeting. For example workplace inspection report, accident investigation report, environmental report, road traffic safety reports, occupational health reports, objective assessments, targets and programs, and other matters related to OSH, the environment and road traffic in order to achieve the objectives of the meeting. NOSHERTCOM meeting this is conducted only at NIOSH Headquarters since it involves all three management systems, namely ISO 45001:2018, ISO 14001:2015 and ISO 39001:2012 systems. The meeting was conducted both physically and virtually in compliance with the SOP set by National Security Council (NSC) and NIOSH.*



## 2. Mesyuarat Jawatankuasa Keselamatan dan Kesihatan Pekerjaan dan Alam Sekitar NIOSH (NOSHECOM)

Mesyuarat ini hanya dilaksanakan di 2 Pejabat Wilayah yang telah dipersijilkan bagi Sistem Pengurusan ISO 45001:2018 dan ISO 14001:2015 dan dijadualkan 3 bulan sekali. Pelbagai isu berkaitan dengan keselamatan dan kesihatan pekerjaan dan alam sekitar dibincangkan di dalam mesyuarat ini bagi mencapai objektif dan sasaran KKP dan alam sekitar. Antara Pejabat Wilayah yang melaksanakan mesyuarat NOSHECOM adalah seperti di bawah:

- a) Pejabat Wilayah Selatan Johor Bahru (SRO-JBU)
- b) Pejabat Wilayah Pantai Timur Kerteh (ECRO-KTH)

## 3. Mesyuarat Jawatankuasa Keselamatan dan Kesihatan Pekerjaan NIOSH (NOSHCOM)

Mesyuarat ini hanya dilaksanakan di 3 Pejabat Wilayah yang telah dipersijilkan bagi Sistem Pengurusan ISO 45001:2018 dan telah dijalankan 3 bulan sekali. Pelbagai isu berkaitan dengan keselamatan dan kesihatan pekerjaan dibincangkan di dalam mesyuarat ini bagi mencapai objektif dan sasaran KKP. Antara Pejabat Wilayah yang melaksanakan mesyuarat NOSHCOM adalah seperti di bawah:

- a) Pejabat Wilayah Utara Penang (NRO-PNG)
- b) Pejabat Wilayah Sarawak Kuching (SWRO-KCH)
- c) Pejabat Wilayah Sabah Kota Kinabalu (SBRO-KK)

## 4. Pemeriksaan Tempat Kerja (WPI)

Pemeriksaan tempat kerja dilaksanakan setiap bulan dan meliputi keseluruhan tempat kerja di Ibu Pejabat NIOSH Bandar Baru Bangi. Laporan pemeriksaan akan dibentangkan di dalam mesyuarat NOSHCOM bagi menentukan langkah kawalan yang berkesan. Pemeriksaan tempat kerja ini melibatkan 3 kawasan yang dilaksanakan antaranya seperti kawasan luar pejabat, kawasan elektrik, dan kawasan dalam pejabat. Di samping itu, kumpulan pemeriksaan tempat kerja akan menjalankan pemantauan pada senarai semak peti pertolongan cemas di setiap kawasan sekiranya terdapat barangan yang perlu ditambah atau tamat tempoh.

## 2. NIOSH Occupational Safety and Health and the Environment Committee Meeting t (NOSHECOM)

*These meetings were held at 2 Regional Offices which had been certified for ISO Management System 45001: 2018 and ISO 14001: 2015 which meetings are scheduled every 3 months. Various issues related to OSH and the environment are discussed in these meetings to achieve OSH and environmental objectives and targets. Regional Offices conducting NOSHECOM meetings are:*

- a) Southern Region Office Johor Bahru (SRO-JBU)*
- b) East Coast Regional Office Kerteh (ECRO-KTH)*

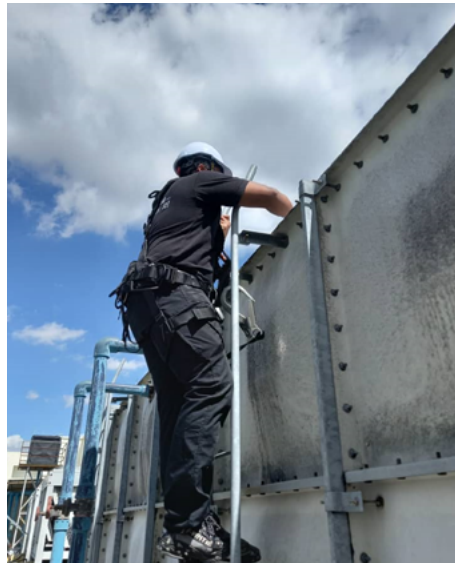
## 3. NIOSH Occupational Safety and Health Committee Meeting t (NOSHCOM)

*These meetings were held at 3 Regional Offices which had been certified for ISO Management System 45001: 2018 which meetings are scheduled every 3 months. Various issues related to OSH are discussed in these meetings to achieve OSH objectives and targets. Regional Offices conducting NOSHECOM meetings are:*

- a) Northern Regional Office Penang (NRO-PNG)*
- b) Sarawak Regional Office Kuching (SWRO-KCH)*
- b) Sabah Regional Office Kota Kinabalu (SBRO-KK)*

## 4. Work Place Inspection (WPI)

*Workplace inspections are carried out monthly. It covers the entire workplace at NIOSH Headquarters Bandar Baru Bangi. The inspection report will be presented at the NOSHCOM meeting to determine the effectiveness of control measures. This workplace inspection involves 3 areas of implementation as outdoor areas of offices, electrical areas, and areas within offices. In addition, work place inspection groups will perform a monitoring exercise in each area on first aid kits to ensure if new items need to be added or to discard expired items.*



#### **5. Taklimat Keselamatan dan Kecemasan kepada Kontraktor (Tool Box Meeting)**

Taklimat keselamatan kepada kontraktor akan dilaksanakan sepanjang kontraktor yang ingin bekerja di dalam NIOSH. Mereka akan diberikan sedikit sebanyak maklumat berkenaan dengan keselamatan dan kecemasan sebelum memulakan pekerjaan yang melibatkan risiko yang tinggi. Pegawai Keselamatan dan Kesihatan Pekerjaan NIOSH akan memberikan taklimat tindakan – tindakan yang perlu diambil sekiranya berlaku kemalangan di tapak kerja, kebakaran di premis dan lain – lain lagi. Sebelum diberikan taklimat keselamatan dan kecemasan, Pegawai Keselamatan dan Kesihatan Pekerjaan NIOSH akan menyemak butiran serta dokumen – dokumen yang terlibat sebelum menjalankan kerja seperti kad keselamatan NIOSH kontraktor, kenyataan kaedah kerja, analisis kebahayaan kerja, Pengenalpastian Bahaya, Penilaian Risiko dan Kawalan Risiko (HIRARC), pemakaian kelengkapan Alat Pelindung Diri (PPE) dan lain – lain lagi melibatkan KKP. Selain itu, kontraktor perlu memohon permit kerja sehari sebelum menjalankan kerja dengan mengisi borang permit kerja menggunakan aplikasi E-PTW.

#### **5. Contractor Safety and emergency briefings (Tool Box Meeting)**

*Safety briefings are given to contractors who wish to work at NIOSH. They will be given information on safety and emergencies before starting a high risk job. NIOSH Occupational Safety and Health Officer will provide action briefings to determine actions that need to be taken in the event of accidents at work, fire at the premises and others. Before relaying the safety and emergency briefing, NIOSH Safety and Health Officers will review details as well as work related documents before carrying out any work such as the NIOSH Contractor Safety Card, work methods statement, work hazard analysis, Hazard Identification Risk Assessment Risk Control (HIRARC), wearing of Personal Protective Equipment (PPE) and others items involving OSH. In addition, contractors need to apply for a work permit the day before starting work by filling out a work permit form using E-PTW application.*

## 6. Pemeriksaan Jentera yang Berdaftar oleh Jabatan Keselamatan dan Kesihatan Pekerjaan (JKKP)

Sebanyak dua belas (12) jentera yang telah berdaftar dengan JKPP Selangor, tiga (3) jentera yang telah berdaftar oleh JKPP Johor dan satu (1) jentera yang berdaftar oleh JKPP Pahang. Kesemua jentera tersebut masih sah digunakan dan belum tamat tempoh. Pemeriksaan dijalankan mengikut perancangan yang telah ditetapkan oleh pihak JKPP melalui platform capaian bersepadu JKPP iaitu MyKKP. Antara jentera-jentera NIOSH yang berdaftar dengan JKPP adalah seperti berikut:

- a) Jentera yang berdaftar dengan JKPP Selangor
  - 4 unit mesin lif
  - 1 unit Monorel Hoist
  - 1 unit Kren Monorel
  - 3 unit Penerima Udara
  - 2 unit Autoklaf
  - 1 unit Platform Alam Sekeliling
- b) Jentera yang berdaftar dengan JKPP Johor
  - 3 unit mesin lif
- c) Jentera yang berdaftar dengan JKPP Pahang
  - 1 unit mesin lif



## 5. Inspection of Machines Registered by Occupational Safety and Health Division

A total of twelve (12) machines have been registered with the Department of Occupational Safety and Health (DOSH) Selangor, three (3) machines have been registered by DOSH Johor and one (1) machine that is registered by DOSH Pahang. All machinery are still validated for use and have not expired. Inspections are carried out according to the plan set by DOSH through the DOSH integrated access platform MyKKP. Among the machinery owned by NIOSH, machinery that are registered with DOSH is as follows:

- a) Machinery registered with DOSH Selangor
  - 4 units Lift Machines
  - 1 unit Monorail Hoist
  - 1 unit Monorail Crane
  - 3 unit Air Receiver
  - 2 unit Autoclave
  - 1 unit Aerial Platform
- b) Machines registered with DOSH Johor
  - 3 units Lift Machines
- c) Machines registered with DOSH Pahang - 1 unit Lift Machines





## 7. Latihan Keselamatan Kebakaran dan Pengendalian Tumpahan Bahan Kimia

Latihan Kawad Kecemasan melibatkan tumpahan bahan kimia di Makmal Biologi telah dilaksanakan pada 2 Disember 2021 bertujuan untuk memberikan pendedahan kepada kakitangan makmal tentang cara untuk bertindak sekiranya berlaku situasi kecemasan seperti berlakunya insiden kebakaran atau tumpahan bahan kimia. Latihan ini juga memberikan pengetahuan dan pengalaman kepada Pasukan NIOSH Pasukan Kecemasan Respons Awal (NEFT) bagaimana untuk mengendalikan dan bertindak awal apabila berlakunya insiden yang seperti ini. Latihan ini juga merupakan latihan tahunan yang dilaksanakan di NIOSH Ibu Pejabat Bandar Baru Bangi, Selangor. Ia juga merupakan salah satu keperluan utama di dalam pelaksanaan Sistem Pengurusan Keselamatan dan Kesihatan Pekerjaan (OSHMS) dan Sistem Pengurusan Alam Sekitar (EMS).

## 7. Fire Safety Training and Handling of Chemical Spills

*Emergency drills training involving chemical spillage, in the Biology Laboratory was carried out on 2 December 2021 aims to teach or train laboratory staff on how to act in the event of an emergency situation, fire incidents or chemical spills. Exercise also provides knowledge and experience to NIOSH Emergency First Response Team (NEFT). How to handle and act early if an incident like this occurs. The annual drill exercise is conducted at NIOSH Headquarters Bandar Baru Bangi, Selangor. It is also one of the main requirements in implementing the Security Management System and Occupational Health (OSHMS) and Management Systems Environmental Environment (EMS) at NIOSH.*



## 8. Aktiviti Pembasmian Nyahkuman

Selaras dengan pematuhan SOP Norma Baharu pasca pandemik, NIOSH telah menjalankan aktiviti pembasmian nyahkuman sekiranya ada kakitangan atau pelanggan NIOSH yang telah disahkan positif COVID-19 semasa berada di premis NIOSH. Aktiviti ini dijalankan mengikut SOP yang telah dikeluarkan oleh Kementerian Kesihatan Malaysia (KKM). Sehubungan itu, NIOSH telah menubuhkan satu pasukan bagi aktiviti tersebut yang dikenali sebagai Ajen Basmi COVID-19 NIOSH (ABCON). Pasukan ini adalah terdiri dalam kalangan kakitangan NIOSH untuk membantu menjayakan usaha dalam aktiviti membasmi penularan COVID-19 di dalam premis NIOSH. Tambahan, penggunaan peralatan dan bahan kimia bagi aktiviti ini adalah mengikut standard yang telah ditetapkan oleh KKM.

## 8. Disinfection Exercise

*In accordance with the compliance to the New Norm SOP for the post pandemic period, NIOSH carried out disinfection activities to safeguard its environment from staff or customers who were tested positive for COVID-19 while on NIOSH premises. These activities are carried out according to the SOP issued by the Ministry Malaysian Health (MOH). NIOSH had set up a team known as NIOSH COVID-19 Eradication Agent (ABCON). This team consist of staff members who are tasked to help make disinfection efforts a success and to eradicate COVID-19 transmission in the premises. The use of equipment and materials and chemicals for this activity abides with the standard set by the MOH.*



Aktiviti pembasmian nyahkuman dijalankan oleh kakitangan NIOSH di ibu pejabat Bandar Baru Bangi.  
*Disinfection exercise carried out by staff members at NIOSH Headquarterse Bandar Baru Bangi.*

### 9. Pencapaian Anugerah Cemerlang Keselamatan dan Kesihatan Pekerjaan

NIOSH telah mendapat satu anugerah pengiktirafan berkaitan keselamatan dan kesihatan pekerjaan pada tahun 2021 oleh Malaysian Occupational Safety and Health Practitioners (MOSHPA). Anugerah pengiktirafan ini merupakan kali ke-2 dimana pada tahun 2020, NIOSH diiktiraf sebagai Gold OSH Management On Government OSH Enabler manakala pada tahun 2021, NIOSH diiktiraf sebagai Platinum Silver OSH Management On Government OSH Enabler Award in Malaysia. Pencapaian ini merupakan satu pembakar semangat bagi melibatkan serta membudayakan keselamatan dan kesihatan pekerjaan dalam kalangan kakitangan NIOSH.

### 9. Outstanding Occupational Safety and Health Outstanding Award Achievement

NIOSH was conferred a recognition award for occupational safety and health in the year 2021 by Malaysian Occupational Safety and Health Practitioners (MOSHPA). This is the second time that NIOSH had successfully received this recognition award. The first was in 2020 where NIOSH was conferred Gold OSH Management On Government OSH Enabler. Whereas in 2021, NIOSH was received the Platinum Silver OSH Management On Government OSH Enabler Award in Malaysia. Achievements such as this is a great motivating factor that drives OSH practices as well as cultivates occupational safety and health among NIOSH staff.







## 10. Kempen NIOSH Earth Hour

NIOSH Earth Hour merupakan kempen memadamkan lampu dan mematikan elektrik selama sejam di seluruh bangunan ibu pejabat NIOSH sebagai usaha mengurangkan penggunaan karbon yang menyumbang kepada pemanasan global selain membantu menjimatkan penggunaan tenaga elektrik. Kempen ini juga turut melibatkan dua (2) Pejabat Wilayah iaitu Pejabat Wilayah Selatan (Johor Bahru) dan Pejabat Wilayah Pantai Timur (Kertih). Aktiviti yang dijalankan secara serentak diseluruh dunia ini telah diadakan pada 27 Mac 2021 bermula 8 pm – 9 pm.

## 10. NIOSH Earth Hour 2021 Campaign

*NIOSH Earth Hour is a campaign organised to reduce environmental issues. For the campaign, all lights at NIOSH Headquarters are turned off and electricity shutdown in the building for one hour. By doing so it would help reduce carbon emissions, global warming and save on electricity usage. Joining the campaign with NIOSH Bandar Baru Bangi were Southern Regional Office Johor Bahru (SRO-JBU) and East Coast Regional Office Kerteh (ECRO-KTH). Earth Hour is a global campaign that runs simultaneously throughout the world on 27 March from 8:00pm to 9:00pm.*

Item Item	Anggaran Penjimatan Elektrik dan Pengurangan Karbon Electricity Savings and Carbon Reduction Estimates		
	NIOSH Bangi	NIOSH SRO-JBU	NIOSH ECRO-KTH
Purata Bil Bulanan <i>Average Monthly Bills</i>	RM122,888.77	RM40,712.96	RM7,500.00
Purata Penggunaan (kWh) <i>Average Consumption (kWh)</i>	241,431.77kWh	27,897.47kWh	14,734.77kWh
Anggaran Penggunaan (kWh) Harian <i>Estimated Daily Consumption (kWh)</i>	8,047.73kWh	929.92kWh	491.16kWh
Anggaran Penggunaan (kWh) bagi Satu Jam <i>Estimated Consumption (kWh) for One Hour</i>	335.16kWh	31kWh	20.46kWh
Anggaran Penjimatan bagi Penggunaan Satu Jam <i>Estimated Savings for One Hour Use</i>	RM170.60	RM11.32	RM10.41
Pengurangan Pelepasan Karbon/ Gas Rumah Hijau <i>Carbon/ Greenhouse Gas Emissions Reduction</i>	232.49 KgCo <sup>2</sup>	21.154 KgCo <sup>2</sup>	13.88 KgCo <sup>2</sup>
Anggaran Pokok yang ditanam <i>Estimated Trees planted</i>	6 pokok	1 pokok	1 pokok

**Jadual 3 :** Anggaran Penjimatan Elektrik dan Pengurangan Karbon  
**Table 3:** Estimates of Electricity Savings and Carbon Reduction

**11. Pensampelan Kualiti Pelepasan Udara Cerobong Dan Kualiti Pelepasan Air Sisa Efluen.**

Pensampelan kualiti pelepasan udara cerobong dan kualiti pelepasan air sisa efluen telah dilakukan pada 2 September 2021. Pensampelan ini dilakukan ke atas semua cerobong asap di bangunan utama, makmal-makmal Konsultansi and Pembangunan Penyelidikan (CRD), unit set generator dan laluan akhir sisa efluen di lubang di hadapan pondok pengawal 2.

Objektifnya adalah untuk memantau tahap pelepasan di bawah piawai parameter yang telah ditetapkan iaitu Peraturan Kualiti Alam Sekeliling (Udara Bersih) 2014 dan Peraturan Kualiti Alam Sekeliling (Efluen Perindustrian) 2009.

Hasil penemuan adalah seperti berikut :

**11. Sampling of Tower Shaft Air Emission Quality And Discharged Effluent Wastewater Quality.**

*Sampling of Tower Shaft Air Emission Quality And Discharged Effluent Wastewater Quality was performed on 2 September 2021. Sampling was performed on all tower shafts and its fume hoods in the main building, Consulting and Research Development Laboratories, generator set units and effluent residue in the manhole at Guard House Station 2.*

*The objective is to monitor the level of emissions at under a predefined parameter standard i.e. Environmental Quality (Clean Air) Regulations 2014 and Environmental Quality Regulations (Industrial Effluents) 2009.*

*The findings are as follows:*

Item Item	Parameter	2020	2021	Peraturan Regulations
Cerobong (Unit 1-13) Chimney (Unit 1-13)	(6) Jumlah Zarah, Asid Sulfurik, Hidrogen Fluorida, Hidrogen Klorida, Asid Nitrik, Kompaun Organik Meruap Bukan Metana <i>Total Particulate Matter, Sulphuric Acid, Hydrogen Fluoride, Hydrogen Chloride, Nitric Acid, Non-Methane Volatile Organic Compound</i>	DIPATUHI COMPLIED	DIPATUHI COMPLIED	Peraturan Kualiti Alam Sekeliling (Udara Bersih) 2014 <i>Clean Air Regulation 2014</i>
Set Generator (Unit 1-4) Generator Set (Unit 1-4)	(5) Jumlah Zarah, Sulfur Dioksida, Oksigen, Karbon Dioksida, Karbon Monoksida <i>Total Particulate Matter, Sulfur Dioxide, Oxygen, Carbon Dioxide, Carbon Monoxide</i>	NIL NIL	DIPATUHI COMPLIED	Peraturan Kualiti Alam Sekeliling (Udara Bersih) 2014 <i>Clean Air Regulation 2014</i>
	(1) Nitrogen Oksida/Nitrogen Dioksida <i>Nitrogen Oxide/Nitrogen Dioxide</i>	NIL NIL	MELEBIHI PARAMETER EXCEEDED PARAMETER	
Sisa Efluen Waste Water	(4) Permintaan Oksigen Biologi, Permintaan Oksigen Kimia, Jumlah Pepejal Terampai, Minyak dan Gris <i>Biological Oxygen Demand, Chemical Oxygen Demand, Total Suspended Solids, Oil &amp; Grease</i>	MELEBIHI PARAMETER EXCEEDED PARAMETER	DIPATUHI COMPLIED	Peraturan Kualiti Alam Sekeliling (Efluen Perindustrian) 2009 <i>Effluent Regulation 2009</i>

Jadual 4 : Hasil Penemuan Pensampelan Kualiti Pelepasan Udara Cerobong dan Kualiti Pelepasan Air Sisa Efluen  
 Table 4: Sampling Findings of Chimney Air Emission Quality and Effluent Wastewater Emission Quality



## 12. Penilaian Tenaga Lestari Bangunan Karbon Rendah (GreenPASS)

Program GreenPASS adalah penilaian sukarela bangunan bertenaaga lestari rendah karbon. Ia merupakan platform untuk menghargai inisiatif bagi bangunan bertenaaga lestari rendah karbon dengan menggunakan Metrik Karbon Biasa UNEP-SBCI/CIS20-GreenPASS CIDB. Program ini adalah sebagai platform untuk mengurangkan karbon dalam sektor bangunan dan menyokong sasaran kerajaan bagi mengurangkan intensiti CO<sub>2</sub> sebanyak 40-45% menjelang tahun 2030.

NIOSH telah menyertai program GreenPASS anjuran SEDA pada tahun 2021 dan telah menerima penilaian tahap 2 Berlian.

## 12. Sustainable Energy Low Carbon Building Assessment (GREENPASS)

The GreenPASS programme is a voluntary assessment on buildings for low carbon sustainable energy. It is a platform to value energy-saving initiatives for buildings with sustainable low carbon emissions using Carbon Metrics UNEP-SBCI/CIS20-GreenPASS CIDB. This programme is a platform to encourage carbon reduction in the building sector so as to support the Malaysian Government's target to reduce CO<sub>2</sub> intensity by 40-45% by 2030.

NIOSH has participated in the GreenPASS programme organised by SEDA in 2021 and has received 2 Diamonds Rating.



**Rajah 3 :** Pelabelan program GreenPASS  
**Figure 3:** Labeling of the GreenPASS program

### 13. Pelan Penjimatan Utiliti NIOSH

Jawatankuasa Keselamatan dan Kesihatan Pekerjaan, Alam Sekitar dan Lalu Lintas Jalan Raya (NOSHERTCOM) telah menetapkan target penurunan 5% ke atas bil utiliti NIOSH. Berdasarkan keadaan semasa pada tahun 2021, terdapat penurunan kadar purata penggunaan elektrik, air dan kertas bulanan di Ibu Pejabat NIOSH berbanding tahun-tahun sebelum ini.

Lampiran menunjukkan analisa kadar penggunaan bil elektrik, air dan kertas di Ibu Pejabat NIOSH (2020 vs 2021).

### 13. NIOSH Utility Savings Plan

*The National Occupational Safety and Health, the Environment and Road Traffic Committee (NOSHERTCOM) had set a target of 5% reduction on NIOSH utility bills. Compared to previous years, there was a decline in the monthly usage of electricity, water and paper consumption at NIOSH Headquarters for the year 2021.*

*The appendix shows an analysis of electricity, water and paper bill consumption rates at NIOSH Headquarters (2020 vs. 2021).*

KADAR BIL ELEKTRIK NIOSH 2019 - 2021 NIOSH ELECTRICITY BILL RATE 2019 - 2021					
BIL ELEKTRIK NIOSH NIOSH ELECTRIC BILL	2019 (A)	2021 (B)	PERBEZAAN DIFFERENCES	PERATUS PERBEZAAN PERCENTAGE DIFFERENCE	KOD WARNA COLOR CODE
Jan	RM 115,721.38	RM69,846.35	-RM 45,875.03	-39.64%	
Feb	RM 115,721.38	RM61,097.65	-RM 54,623.73	-47.20%	
Mar	RM 115,721.38	RM107,522.90	-RM 8,198.48	-7.08%	
Apr	RM 115,721.38	RM93,342.95	-RM 22,378.43	-19.34%	
May	RM 115,721.38	RM49,244.25	-RM 66,477.13	-57.45%	
Jun	RM 115,721.38	RM28,866.30	-RM 86,855.08	-75.06%	
Jul	RM 115,721.38	RM33,195.45	-RM 82,525.93	-71.31%	
Aug	RM 115,721.38	RM49,584.35	-RM 66,137.03	-57.15%	
Sep	RM 115,721.38	RM57,160.55	-RM 58,560.83	-50.61%	
Oct	RM 115,721.38	RM84,512.60	-RM 31,208.78	-26.97%	
Nov	RM 115,721.38	RM95,704.80	-RM 20,016.58	-17.30%	
Dec	RM 115,721.38	RM95,874.85	-RM 19,846.53	-17.15%	
<b>JUMLAH TOTAL</b>	<b>RM 1,388,656.56</b>	<b>RM825,953.00</b>			



KADAR BIL ELEKTRIK NIOSH 2019 - 2021 NIOSH ELECTRICITY BILL RATE 2019 - 2021					
BIL AIR NIOSH NIOSH WATER BILL	HARGA DASAR BIL AIR NIOSH BASIC PRICE OF NIOSH WATER BILLS	2021 (B)	PERBEZAAN DIFFERENCES	PERATUS PERBEZAAN PERCENTAGE DIFFERENCE	KOD WARNA COLOR CODE
Jan	RM5,496.92	RM3,031.65	-RM 2,465.27	-44.85%	
Feb	RM5,496.92	RM2,588.90	-RM 2,908.02	-52.90%	
Mar	RM5,496.92	RM3,583.85	-RM 1,913.07	-34.80%	
Apr	RM5,496.92	RM2,501.95	-RM 2,994.97	-54.48%	
May	RM5,496.92	RM2,262.05	-RM 3,234.87	-58.85%	
Jun	RM5,496.92	RM638.45	-RM 4,858.47	-88.39%	
Jul	RM5,496.92	RM42.75	-RM 5,454.17	-99.22%	
Aug	RM5,496.92	RM3,908.35	-RM 1,588.57	-28.90%	
Sep	RM5,496.92	RM5,672.95	RM 176.03	3.20%	
Oct	RM5,496.92	RM5,254.35	-RM 242.57	-4.41%	
Nov	RM5,496.92	RM7,236.40	RM 1,739.48	31.64%	
Dec	RM5,496.92	RM8,030.68	RM2,533.76	46.09%	
<b>JUMLAH/ TOTAL</b>	<b>RM65,963.04</b>	<b>RM44,752.33</b>			

KADAR PENGGUNAAN KERTAS NIOSH 2021 / NIOSH PAPER USE RATE 2021					
BULAN MONTH	JUMLAH DASAR PENGGUNAAN KERTAS 2019 (A) TOTAL PAPER USE POLICY 2019 (A)	2021 (B)	PERBEZAAN (A-B)	PERATUS PERBEZAAN PERCENTAGE DIFFERENCE ( X 100)	KOD WARNA COLOR CODE
Jan	40 kotak boxes	32	-8	-20%	
Feb		31	-9	-23%	
Mar		47	7	18%	
Apr		29	-11	-28%	
May		4	-36	-90%	
Jun		0	-40	-100%	
Jul		0	-40	-100%	
Aug		5	-35	-88%	
Sep		23	-20	-50%	
Oct		39	-1	-3%	
Nov		15	-25	-63%	
Dec		0	-40	-100%	
<b>JUMLAH TOTAL</b>	<b>479 kotak boxes</b>				

Penurunan 5% atau lebih  
5% or more Reduction

Penurunan kurang 5%  
5% or less Reduction

Kenaikan  
Increase in Usage

Langkah-langkah penjimatan yang telah diambil oleh NIOSH ialah:

1. Berhemah dalam menggunakan peralatan elektrik seperti komputer, laptop, lampu, kipas dan sistem penghawa dingin di dalam pejabat.
2. Buka suis bila perlu, dan tutup suis komputer, lampu di lokasi atau waktu yang cerah, menutup kipas dan sistem penghawa dingin pada waktu rehat dan pada waktu pulang. Orang yang terakhir meninggalkan pejabat perlu peka dengan operasi baru ini.
3. Suhu sistem penghawa dingin perlu ditetapkan pada suhu 24 darjah celsius (dalam keadaan biasa) dan memastikan pintu sentiasa ditutup bagi mengelakkan udara sejuk keluar. Contohnya, pintu lobi menara dan bangunan utama, pintu cafeteria dan semua pintu pejabat. Semakin tinggi perbezaan suhu yang ditetapkan berbanding suhu luar bangunan, semakin banyak kompressor dan motor menggunakan elektrik untuk mencapai suhu yang dikehendaki, maka semakin banyak penggunaan elektrik.
4. Memastikan suis lampu, sistem penghawa dingin, LCD projektor, komputer dan lain-lain barangan elektri di dewan, Simulator Ruang Terkurung, makmal-makmal, bilik-bilik latihan, bilik mesyuarat dan surau mestilah ditutup setelah digunakan.
5. Berhemah menggunakan air ketika di kafeteria, tempat wuduk dan tandas dan pantas melaporkan kepada pihak Bahagian Pentadbiran dan Fasiliti (ADFD) apabila mendapati berlaku kebocoran air.
6. Sistem Operasi Bangunan termasuk Sistem Penghawa Dingin (Pusat) akan ditutup pada pukul 6.00 petang.

*The measures taken by NIOSH to save on electricity usage are as follows:*

1. *Be prudent when using electrical appliances such as computers, laptops, lights, fans and air conditioning systems in the office.*
2. *Switch on when necessary, and switch off the computer, turn-off lights if there is sufficient natural or sunlight, turn-off fans and air conditioning at break time and when clocking out from work. The last person to leave the office needs to pay attention to this new operations.*
3. *The temperature of the air conditioning system should be set at 24 degrees celsius (under normal conditions) and meanwhile, ensure doors are always closed to prevent cold air from going out. For example, tower and building lobby main doors, cafeteria doors and all office doors. The more temperature difference occurs between indoor and outdoor temperature, the more electricity is used by the compressors and the motor to reach the desired temperature. Hence, an increase in electricity usage.*
4. *Ensure light switch, air conditioning system, LCD projectors, computers, and all other electrical items in the hall, Confined Space Simulators, laboratories, training rooms, meeting rooms and prayer rooms must be closed after use.*
5. *Be prudent when using water in the cafeteria, place of ablution and restrooms. Promptly report to the Administration Division and Facilities Department (ADFD) when water leaks are discovered.*
6. *The Building Operating System including the Centralised Air Conditioning System will close at 6:00pm in the evening.*



Sistem Kitar Semula dan  
 Pengasingan Buangan  
*Recycling System and Separation  
 of Waste Material*

**14. Program Kitar Semula**

Objektif utama program ini adalah untuk memastikan buangan domestik diasingkan mengikut kategorinya yang ditentukan. Program ini dijalankan setiap bulan sepanjang tahun. Tong kitar semula telah disediakan di tempat yang diwartakan supaya pengasingan buangan dapat dilakukan sehingga ke tempat pelupusan.

**14. Recycling Programme**

*The main objective of this programme is to segregate domestic waste by category. The programme is conducted monthly throughout the year. Recycling bins are provided in a selected place so that waste segregation can be carried through from the office to the landfill.*

**15. Buangan Terjadual.**

Sisa buangan terjadual akan dilabel, disimpan di dalam stor khas dan dibawa ke Kualiti Alam bagi tujuan pelupusan setiap 12 bulan (tempoh kebenaran dari Jabatan Alam Sekitar). NIOSH melaksanakan penyelenggaraan Sisa Terjadual ini sebagai mematuhi peraturan dan garis panduan yang khusus seperti di dalam Peraturan Bahan Buangan Terjadual (2005).

**15. Scheduled Waste Disposal**

*Scheduled waste to be disposed are labeled, kept in a special storage room, and brought to Kualiti Alam for disposal every 12 months (following the permitted period from the Department of Environment). NIOSH performs this Scheduled Waste Disposal in compliance with specific rules and guidelines stated in the Scheduled Waste Regulations (2005).*





**16. Skim Akreditasi Makmal Malaysia (SAMM) (MS ISO/ IEC 17025:2017)**

Pertambahan skop Skim Akreditasi Makmal Malaysia (SAMM) pada makmal Occupational Safety and Health Evaluation and Control Technology Laboratories (OSHECT) yang telah berjaya diperolehi sepanjang tahun 2021 adalah seperti berikut :

**16. Malaysian Laboratory Accreditation Scheme (SAMM) (MS ISO/ IEC 17025: 2017).**

*Increasing the scope of SAMM at the Occupational Safety and Health Evaluation Laboratory and Control Technology Laboratories (OSHECT) was successfully acquired throughout 2021 as follows:*

Sumber / Source	Makmal / Laboratory	Skop / Scope
Penambahan Skop (EOS) <i>Extension of Scope (EOS)</i>	Makmal Pengesahan Peralatan Perlindungan Pernafasan (DML) <i>Dust Mask Laboratory (DML)</i>	Mekanikal <i>Mechanical</i>
Penambahan Skop (EOS) <i>Extension of Scope (EOS)</i>	Makmal Pengesahan Peralatan Pencegahan Jatuh (FPETL) <i>Fall Protection Equipment Testing Laboratory (FPETL)</i>	Mekanikal <i>Mechanical</i>
Penambahan di Pejabat Wilayah <i>Extension of Branch (EOB)</i>	Makmal Ergonomik Manusia (HEAL) <i>Human Ergonomics Assessment Laboratory (HEAL)</i>	Mekanikal <i>Mechanical</i>
Penambahan di Pejabat Wilayah <i>Penambahan di Pejabat Wilayah</i>	Makmal Ergonomik Persekitaran (EEL) <i>Environmental Ergonomics Laboratory (EEL)</i>	Thermal <i>Termal</i>

Selain itu, dua (2) makmal di bawah OSHECT iaitu Chemical Hazardous to Health Laboratory (CHL) dan Gas Calibration Laboratory (GCL) telah menerima Anugerah Makmal Cemerlang 2021 anjuran Institut Kimia Malaysia (IKM). Majlis penyampaian Malam Kimia 2021 telah diadakan pada 3 Disember 2021 bertempat di Manhattan II (Level 14), Berjaya Times Square Hotel, 1 Jalan Imbi, 55100 Kuala Lumpur.

*Furthermore, two (2) laboratories under OSHECT Chemical Hazardous to Health Laboratory (CHL) and Gas Calibration Laboratory (GCL) received the Laboratory Excellence Award 2021 organised by the Institute of Chemistry Malaysia (IKM). The event Chemistry Night 2021 was held on 3 December 2021 at Manhattan II (Level 14), Berjaya Times Square Hotel, 1 Jalan Imbi, 55100 Kuala Lumpur.*



Sijil Anugerah Cermelangan Makmal 2021 dari  
Institut Kimia Malaysia  
*IKM Laboratory Excellence Award 2021*

## KEPUASAN PELANGGAN

### Pengurusan Aduan Pelanggan

Pengurusan Aduan Pelanggan merupakan salah satu aktiviti utama yang dilaksanakan oleh Bahagian Pengurusan Kualiti (QMD) bagi memastikan setiap aduan dan pertanyaan daripada pelanggan diberi maklumbalas dalam tempoh masa 8 jam waktu bekerja.

Prosedur Pengurusan Aduan Pelanggan disediakan untuk memberi panduan dan penerangan tatacara pengurusan aduan pelanggan bagi memastikan pengurusan aduan dan maklumbalas daripada pelanggan NIOSH di seluruh Malaysia dapat dikendalikan dengan cekap, teratur dan berkesan.

Hasil Laporan Aduan Pelanggan akan dijadikan medium penambahbaikan berterusan ke atas produk dan perkhidmatan NIOSH di masa hadapan.

## CUSTOMER SATISFACTION

### Customer Complaint Management

*Customer Complaint Management is a very important activity implemented by the Quality Management Division (QMD) to see to every complaint and inquiry from customers in which, feedback is to be given within 8 hours following work hours.*

*Customer Complaint Management Procedures provide guidance and explanation of management procedures that address customer complaints and also to serve the customer complaint management service. Another method is sharing feedback from NIOSH customers throughout Malaysia would be operated efficiently, orderly and effectively.*

*The outcome of the Customer Complaint Report will be used as a source for continuous improvement on products and NIOSH services in the future.*

## PENILAIAN TENAGA PENGAJAR, PROGRAM DAN KEMUDAHAN

Dalam usaha memastikan kualiti penyampaian produk dan perkhidmatan NIOSH berada pada tahap terbaik, QMD telah menjalankan penilaian di atas talian sepenuhnya bagi tahun ini yang merangkumi penilaian tenaga pengajar, program dan kemudahan berdasarkan maklum balas daripada peserta kursus. Secara keseluruhannya hasil daripada ketiga-tiga skop penilaian ini menunjukkan perkhidmatan yang diberikan oleh NIOSH berada pada tahap cemerlang dan baik.

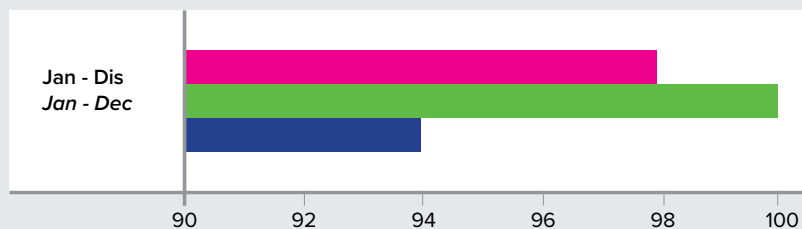
Bagi mengukuhkan lagi penilaian tersebut, 61 program penaziran juga telah dilaksanakan terhadap tenaga pengajar yang terpilih. Objektif penaziran ini adalah untuk memantau prestasi tenaga pengajar NIOSH berdasarkan garis panduan yang ditetapkan.

## ASSESSMENT OF INSTRUCTORS, PROGRAMMES AND FACILITIES

*In order to ascertain the quality of product and services at NIOSH are at its best, Quality Management Division (QMD) conducted online assessments for the year 2021. The online assessments directed an evaluation of faculty, programmes and facilities based on feedback from participants attending the courses. The overall result of all three scopes of this evaluation indicated the services provided by NIOSH is excellent.*

*To further strengthen the assessment, 61 programme inspections were carried out on selected teaching staff. The objective of this inspection was to monitor the performance of NIOSH instructors based on set guidelines.*

### Penilaian Tenaga Pengajar, Program dan Kemudahan. *Assessment of Instructors, Programmes and Facilities.*




	Jan - Dis Jan - Dec
<span style="color: #e91e63;">■</span> Kemudahan Facilities	98
<span style="color: #4caf50;">■</span> Program Programme	100
<span style="color: #3949ab;">■</span> Tenaga Pengajar Trainer	94







**NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH (NIOSH)**  
**MINISTRY OF HUMAN RESOURCES**  
Institut Keselamatan dan Kesihatan Pekerjaan Negara  
Kementerian Sumber Manusia

[www.niosh.com.my](http://www.niosh.com.my)

 Lot 1, Jalan 15/1, Section 15,  
43650 Bandar Baru Bangi,  
Selangor Darul Ehsan.

 03-8769 2100 | 03-8911 3800  
 03-8926 2900