

2018 CHEMISTRY

INTERNSHIP INFOGRAPHICS



MINISTRY
OF EDUCATION
MALAYSIA



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

2018 CHEMISTRY

INTERNSHIP INFOGRAPHICS



MINISTRY
OF EDUCATION
MALAYSIA



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

INTERNSHIP INFOGRAPHICS SSCA & SSCC 2018

ISBN 978-967-2171-60-7



9 789672 171607



First Printing 2018

Hak Cipta Terpelihara © 2018 Jabatan Kimia

Editor and Cover Illustration by

Published by Jabatan Kimia

Fakulti Sains, Universiti Teknologi Malaysia

81310 UTM Johor Bahru, Johor, MALAYSIA

<https://science.utm.my/intern-infographics/>

ALL RIGHT RESERVED

No parts of this publications may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior permission of the publisher.



EDITORIAL BOARD

Patron

Assoc. Prof. Dr. Shajarahtunnur Jamil

Editor

Dr. Sheela Chandren

Co-Editor

Dr. Norazah Basar

JKPP Editorial Members

Assoc. Prof. Dr. Razali Ismail

Dr. Che Rozid Mamat

Hashim Baharin

Dr. Hasmerya Maarof

Dr. Khairil Juhanni Abdul Karim

Dr. Mohd Bakri Bakar

Mohd Daniel Abdullah

Dr. Nursyafreena Attan

Dr. Roswanira Abdul Wahab

Published by **Jabatan Kimia**
Jawatan Kuasa Pembangunan
Pelajar
Jabatan Kimia 2018

Jabatan Kimia
Fakulti Sains
Universiti Teknologi Malaysia
81310 UTM Johor Bahru
Johor Bahru
MALAYSIA



Contents

	Preface	005
Foreword by Directory, Department of Chemistry		006
JKPP: 2018 Students' Development Roadmap		007
Distribution of Internship Locations		010
	Kedah	012
	Penang	017
	Perak	020
	Selangor	024
	Kuala Lumpur	037
	Negeri Sembilan	039
	Melaka	041
	Johor	044
	Terengganu	070
	Sarawak	073
	Sabah	075
	Overseas	079
	List of Students	082

Preface

After our first ever success in publishing Chemistry Internship Infographics last year (2017), this year, we are once again carrying on this soon-to-be tradition. Why are we doing this? Well, in today's working world, there is a mismatch between the demand and supply of graduates, with employers reporting that graduates lack the requisite knowledge, skills and attitudes. As we enter the 4th Industrial Revolution, it gets tougher and tougher to resolve this mismatch as technological disruptions are constantly reshaping job markets and altering the types of careers. In line with that, UTM is preparing the students to navigate this uncertain future, which not only requires instilling them with transferrable skills and sound ethical foundations, but also the resilience and enterprising spirit to forge new opportunities for themselves and the others.

For ease of reference, this is the compilation of the Infographics prepared by the final year students of SSCA and SSCC, whom recently just completed their Industrial & Research Training during the short semester of 2018.

Foreword by the Director, Dept. of Chemistry

CONGRATULATIONS to all 3rd year students who had successfully underwent the industrial/research training for 10 weeks during last short semester break. Hopefully all of you had able to enhance your knowledge and technical skills that you had learned in university and also had gained valuable work experience. Industrial training is where you have the opportunity to practice your communication and teamwork skills besides to practice good qualities of integrity, responsibility and self-confidence in real working environment. The work experience are surely different from one student to the other but surely there are lots of lesson learned during the 10 weeks period. **Keep on improving yourselves and never give up. Hold to the positive thought and attitudes!!! Always ask what and how I can contribute. May you all be successful in your study and self-development.**

Associate Professor Dr. Shajarabhtunnur Jamil
Director, Department of Chemistry



JKPP

We wish to produce graduates with relevant disciplinary knowledge and skills, ethics and morals, as well as the appropriate behaviours, mind sets, cultural and civilizational literacy, to advance them to a higher level of personal well-being. Our chemistry graduates will be ready and willing to contribute to the betterment of the family, society, nation, and global community. Such holistic, entrepreneurial, and balanced graduates are a natural extension of achieving the goal of the Malaysian basic education system, which is to ultimately develop values-driven Malaysians.



**Jawatan Kuasa Pembangunan Pelajar
invites all SSCA & SSCC students to join MY ROADMAP®**



MYROADMAP

BY JKPP



Lifelong Learning AD1
Positive Attitude & Behaviors AD2
Team Working AD6
Critical Thinking AD7

Communication Skills AD3
Responsibility AD4
Adaptability AD5
Team Working AD6
Leadership AD8

Lifelong Learning AD1
Communication Skills AD3

Personal Skills

Teamworking Skills

Corporate Behaviour

CONTINUOUS ASSESSMENTS

Year 1

Year 2

Year 3

Year 4

Working Environment

IQ

Undergraduate Research Project

Technical Competency

CAREER EXCELLENCE

EQ

7 habits

Sports Day

Personal Excellence

ALUMNI NETWORKING

SQ

Outdoor Survival

Event Managements

Community Service

Career Festival

Study Circle / Group



ROI

ROI

ROI

SEMESTER 1 & 2

SEMESTER 3 4 5 6

SEMESTER 7 & 8

Consistent enthusiasm and positive attitudes towards learning and personal growth in academic and personal life.

Experiential teamwork based learning in social, academic and community interaction.

Career knowledgeable, dream realization, ability to market self and turn challenges into opportunities.

ROI2 : The backbone of MyRoadmap
Student Ownership-Based Program - PESAT

Continuous Alumni Engagements
Financial Sustainability
ALUMNI GIVES BACK



Ready to help friends

Ready to seek more self potential

Ready for job market

Milestones

Intra-University Networking, Execution of ROI programs

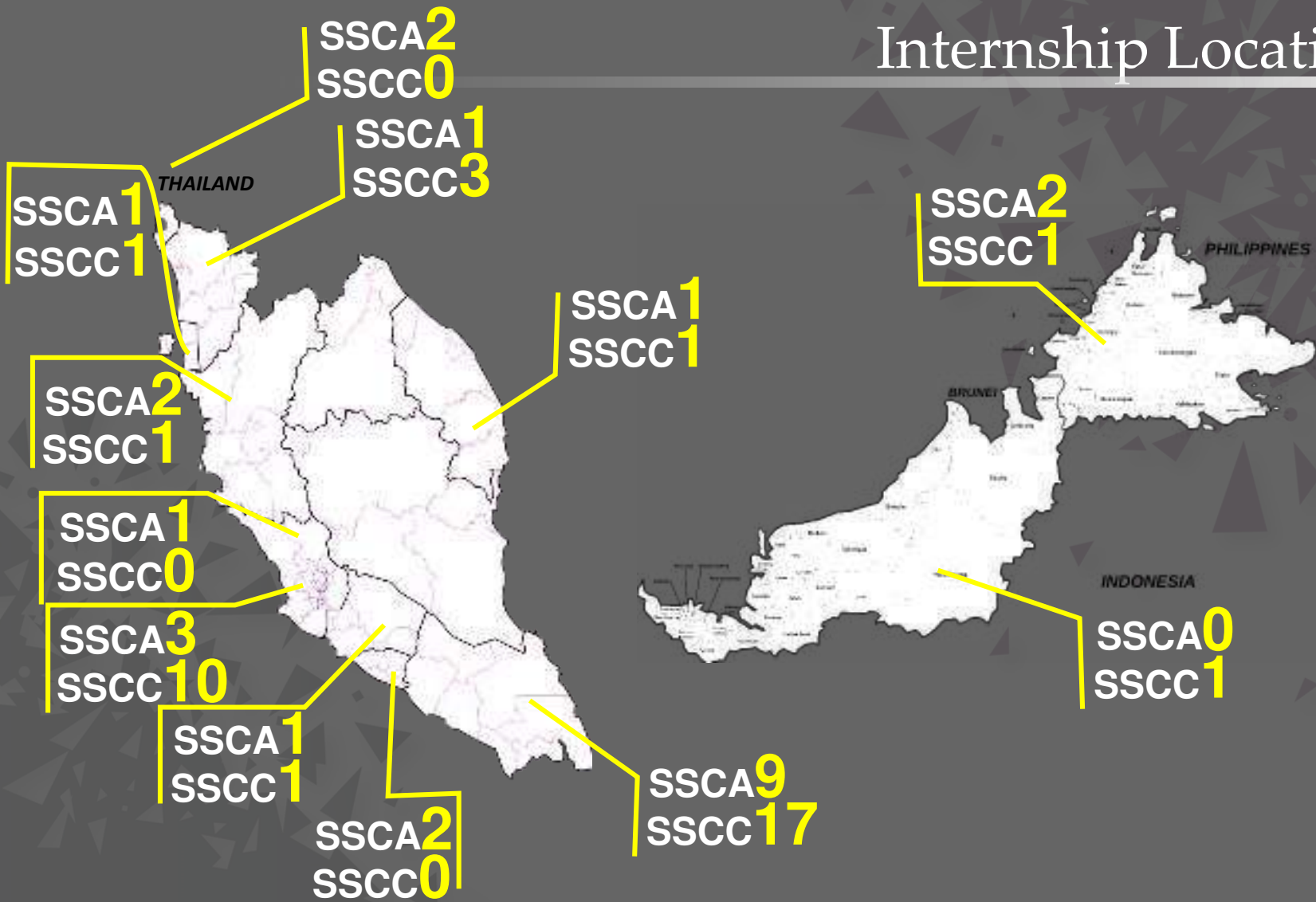
Symbiosis relationship with communities

Reach out for external networkings

Without #myROADMAP, you can still be a graduate,
But with #myROADMAP, you will definitely be an
excellent graduate:
Your graduation will be a celebration for employers and
community.



Distribution of Internship Locations





DISCLAIMER

All students of SSCA & SSCC were given the freedom to express their own creativity and ideas in words, pictures and graphics, obtained from various sources that may or may not include resources from the internet. There is no restriction on the presentation ideas; editing is very minimal. This compilation of internship infographic is solely meant for learning purposes.



K E D

INTERNSHIP IN DXN PHARMACEUTICAL SDN BHD

Personal detail

- ⇒ Name: Mohd Solihim Bin Johari
- ⇒ Program: 3 SSSC
- ⇒ Matric no: A15SC0089
- ⇒ Sv faculty: Dr Sharidan Shafie

Company detail

- ⇒ Name: DXN PHARMACEUTICAL SDN BHD
- ⇒ Contact no: 04-7723388
- ⇒ Allowance: Yes
- ⇒ SV Industry: KHOO HWA CHUAN

Job scope

Department Lab

SECTION WATER

- Do physical and chemical test on waste and drinking water
- Test parameter: pH, COD, Turbidity, Chlorine total

Introduction

- DXN was founded by Dato' Dr. Lim Siew Jin.
- Food supplement contain Ganoderma or Lingzhi
- product lines: supplements, food and beverages, personal care products,

Instruments



- HACH DR6000
- pH meter
- Turbidity meter
- Uv-Vis



Experiences

- ◊ Working in organizational
- ◊ Learned to be on time at work place
- ◊ Learned to be discipline
- ◊ Learned to accept instruction from manager
- ◊ Increase skill on handle instrument



The Department of Chemistry Malaysia consists of a network of laboratories around the country that provides analysis, investigations and scientific consultancy to government agencies. It is aimed to support enforcement of the law along with the implementation of programs that relate to the safety of water, food, the environment and industrial products to protect and advance public health and safety to the larger public, and protect consumers' interest as well as health and safety in the work place.



Criminalistics Section

The Criminalistics Section deals largely with examination of physical evidence related to criminal cases, covering areas such as firearms examination, vehicle examination, trace evidence, pirated optical discs etc. Services are also provided for scene investigation of fire/arson, explosion and accident cases.

Instrumentation:

HPLC
GCMS
FTIR
UV-Vis

Noorfainnas Bin
Noorazman
3SSCA

Industrial Contact No:
04-7357001

Examination of
erased identification
number

Examination of
vehicles involved in
traffic accident

Training
Scope

Forensic
analysis of
paint

Analysis of schedule
poison in medicinal
Preparation



Industrial Supervisor:
Madam Haslinda Bt Ismail

Faculty's Supervisor:
Assoc. Prof. Dr. Sharidan
Shafie



BIO SYNERGY LABORATORIES SDN BHD (UNDER DXN HOLDINGS BERHAD)

ABOUT ME

- Name : Siti Nor Amalina Binti Mohd Akhir
- No Matric : A15SC0266
- Course : Industrial Chemistry (3SSCC)
- Supervisor :-
(Faculty) : Assoc. Prof. Dr. Sharidan Shafie
(Industrial) : Mr Khoo Hwa Chuan (Senior Manager)
: Shahrul Fatin Izzati Binti Adnan
(Head Section Of Chromatography)

INTRODUCTION

- This organization had established in 2013 (subsidiary of **DXN Groups**) has started to operate **testing laboratory providing testing service** to internal DXN Group companies and external clients.
- The laboratories are located at Main Branch at Jitra, Kedah, the other three branches are at Northern Region Lab (Penang), Central Region Lab (Petaling Jaya) and Southern Region Lab (Johor Bahru)

JOB SCOPE

Gas chromatography :

- Determination of pesticides in foods and screening oils
- Determination of phthalates in foods and oils
- Determination of 2,3-MCPD Esters and Glycidol Esters
- Determination of 3-MCPD in Foods

EXPERIENCES

- Able to learn about the instruments used in this section
- Learn on how to handle the testing on samples
- enable to explore and experience on real life of working environment.
- Has been visited around the DXN Factory such as pharmaceutical building, cosmetics building.
- Learn on how to manage time wisely and discipline.

INSTRUMENTS



Centrifuge machine



GC-MS/MS
(triple quadrupole)



GC-MS

ADDRESS

BIO SYNERGY LABORATORIES SDN BHD
Address : Lot 1109, Mukim Malau, Daerah Kubang Pasu, 06000 Jitra, Kedah Darul Aman.
No tel : +604-9161288/2688
Fax no : +604-9173610/1698
Email : www.biosynergy.com.my

CONTACT

NAME : MR KHOO HWA CHUAN
EMAIL : hckhoo@dxn2u.com
: hckhoo@biosynergy.com.my

VARANYA A/P UJRAK 3SSCE



- Official opening of Kedah Branch in 2007
- Forensic Division provides independent and impartial forensic science services to government agencies
 - Narcotics**
 - Criminalistics**
 - Toxicology**

- Job Scopes at Toxicology Lab
 - Performs analysis of scheduled poisons in medicinal preparations
 - Example Scheduled poisons: Dexamethasone, Betamethasone, Ibuprofen, Chlorpheniramine, Lignocaine

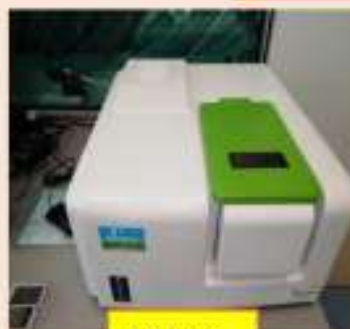


HPLC



FTIR

GC-MS



UV-Vis

- Address of Organization: Jalan Suka Menanti, Kedah, 05150 Alor Setar
- Apply through website: <http://www.kimia.gov.my>



P

E

N



AN INTERNSHIP TRAINEE

M. MONISHA DEVI

AT PGEH EDIBLE OILS

LAB SERVICES



OIL TESTING

- A) FFA
- B) CLOUD POINT
- C) COLOR
- D) DBPI
- E) MOISTURE
- F) IODINE VALUE
- G) PEROXIDE VALUE

WATER TREATMENT

- A) COD
- B) DISSOLVED OXYGEN
- C) SLUDGE VOLUME
- D) SUSPENDED SOLID

PRICELESS EXPERIENCE..

The priceless experience I gained during my internship was I train myself to be more extrovert by networking with professionals such as engineers, managers and senior production executive. Besides, I also was given chance to work in oil refinery plant rather than doing oil testing in the lab. This enable me to know more about palm oil refinery. From the knowledge I gained, I'm able to complete the task given by my supervisor to prepare a report on troubleshooting in palm oil refinery plant. This internship had taught me on being more independent and taking own initiative

- 🎓 Bachelor Degree of Science (Pure Chemistry)
Universiti Teknologi Malaysia, Skudai
- ✉ monishaj607@gmail.com
- 📍 PGEH Edible Oils Sdn. Bhd
262H, Tingkat Perusahaan Tiga, Prai Industrial Complex, 13600 Prai, Penang
- ★ Main Service:
Refining crude oil into edible oil

Industry Supervisor..

MR SEEN BENG HONG

Plant Manager,
PGEH Edible Oils Sdn. Bhd.

Faculty Supervisor..

DR DR. WAN MUHAMMAD SARIDAN

Lecturer in Physics,
Department of Physics, Faculty of Science



INSTRUMENTATION



Things learned..



Eurofins NM Laboratory Sdn. Bhd

► INTRODUCTION:

It is a certified laboratories providing various analytical testing services.

Example: pharmaceutical, food, environmental and consumer products industries and to governments.

► JOB SCOPE:

1. pH
2. Oil & Grease
3. Suspended solids
4. Turbidity
5. Calorimetric method
(UV-Vis Spectrophotometer)

► TRAINING & EXPERIENCES:

- Safety training
- 5S training
- Washing training
- Quality control
- Competency test

► INSTRUMENTS:

1. Eutech pH 2700
2. HACH 2100Q
(Turbidimeter)
3. HACH DR6000
(UV-vis spectrophotometer)

► SUPERVISOR DETAILS:

Industry: Mr. Shaun Tan Chow Khim (Laboratory Manager)

Faculty: Prof. Madya Dr. Wan Muhamad Saridan bin Wan Hassan

► CONTACT:

- ❑ Address: 78 & 80, Lorong Perda Selatan 1, Bandar Perda, 14000 Bukit Mertajam, Penang.
- ❑ Phone: +604 – 538 8086
- ❑ Email: enquiry-enml.bm@eurofins.com



Name: Ng Jia Ya
Course: 3SSCC
Matric No: A15SC0115



P R K

Malaysia's
best selling
natural
mineral
water.

CHUAN SIN SDN BHD

EZIAN AMELYA BINTI ABDUL MALEK
SSCA

SPRITZER

SUPERVISOR

Dr Hang
See Pheng
(UTM)

Mrs Ilyani
Adnan
(SPRITZER)

Mrs Nur
Hidayah
Ibrahim
(SPRITZER)



juliaooi@spritzer.com.my
HR/AD Executive Manager

Test run on packaging material



Take in process sample



Verified instrument

Exposed on process and common defect on preform



Able and willing to acquire new hard skills and an open-mindedness to new tasks and new challenges

Understanding and cooperation in the multicultural workplace

Able to do the given tasks beyond the internship job description

Learn on how to use measuring tool

Exposed on production of bottled water

Incoming Quality Control

In lab

Swab test

Chemical test

0
2
1



Nur Atikah Binti Abdullah
3SSCC (A15SC0159)
Industrial SV:
Ms. Chung Yoke Tying

Lot 56442, 7½ Mile, Jalan Ipoh/Chemor
31200 Chemor Perak

Quality Control

Stringent quality control is practiced and enforced throughout the process from approval and checking of raw materials and in-process controls to final analysis of finished products using highly sophisticated and complex instruments.

Introduction of Company

ExcelVite Sdn. Bhd is a relatively new company incorporated in Malaysia on August 2013. ExcelVite's proprietary production process enables it to extract palm nutraceutical products such as tocotrienol(Vitamin E) and mixed-carotene from virgin crude red palm oil through a molecular distillation technology. It is integrated state-of-the-art process which enables the processing of crude palm oil to produce a number of phytonutrient products and oleochemica / biodiesel as well as glycerine as co-products.

Extraction Process



Project

1. Comparison Of The Antioxidant Activity Of D-Alpha Tocopherol and Palm TRF in Fried Peanuts and The Cooking Oil Used.



1. Comparison Of The Antioxidant Activity Of D-Alpha Tocopherol and Palm TRF in Fried Dough and The Cooking Oil Used.



Instrumentation



QC Department Staff



Contact

Mrs. Rahma Jamiah bt Abdul Rahman
hr@excelvite.com

TOYO TIRES

driven to perform

COMPANY BACKGROUND

The Toyo Tire Malaysia Sdn Bhd. was established in Taiping, Perak on 12 April 2011 following the acquisition of Silverstone Berhad. The construction of Toyo Tire Malaysia is divided to three phases.

On 8 May 2013, Toyo Tire & Rubber Co., Ltd. Chairman, Mr Kenji Nakakura officiated the First Phase Factory Completion Ceremony of Toyo Tire Malaysia. The factory was built on a 148-acre site and it produces high quality tires for passenger car, MPV and SUV tires. The facility is equipped its latest manufacturing equipment and uses Toyo Tires' most advanced technologies – T mode and Advanced Tire Operation Module (A.T.O.M.), a highly flexible and automated production system. Toyo Tire Malaysia is currently headed by its managing director, Mike Toh and is primed to be the largest outside Japan for Toyo Tires when all phases are completed. The factory produces about 5 million tires annually and exported to Southeast Asian countries, Middle East, Europe and U.S.



- SUPERVISORS:**
- 1) GUAN NG LAI
 - 2) NURUL SYAFIKA BT ABU

PERSONAL INFO



Sumitra a/p Venugopal
B.Sc. Chemistry

TASK I PERFORMED IN TTM



Raw Material Tests



MDR TEST



REBOUND TEST



TENSILE TEST



VISCOELASTICITY



OTA



IODINE ADSORPTION TEST





S E L

During my industrial training, I was assigned to a couple of major engagements and had the opportunity to put my knowledge into practice.

I am in the Regulatory Affairs team under the Quality Assurance department. We assist companies performing quality assurance to review documentation that substantiates quality activities by matching the facts to the eligibility requirements of countries and specifications

Some of it is I was tasked to draft out;

1. specific components of reports
2. prepare the instruction for use,
3. Declaration of conformity
4. and Letter of Declaration undertaken

Including how and why these meet the eligibility requirements. I have also exposed with the production of gloves, the chemical and material used and the function of every line.



In this department, I also got to sit in many important meetings and had first-hand experience on how meetings are conducted amongst top level management and perform actual audit procedures

Special Project

Two weeks in, I got involved in the project as a supporting QA in planning a revised Instruction For Use.

IFU is the information provided by the manufacturer to inform the device user of the medical device's intended purpose and proper use and of any precautions to be taken.

Let me give you a scenario where the Medical devices can be so complex and may require users to understand specific information about storage, use, disposal, or reprocessing.

Safety is another critical factor to consider, this product guidelines contain important safety information that helps purchasers avoid personal injury and property damage



JOB SCOPE



Top Glove Corporation Bhd is the world's largest manufacturer of gloves, with operations spanning across Malaysia, Thailand, China, US and Europe.

It is also aggressively expanding its business scope and on the lookout for opportunities in similar and related industries.

Gloves manufactured by Top Glove are associated with quality and efficient low cost and meet internationally recognized standards such as ASTM, EN and ISO

Overview of Internship



Challenges Experienced

Being in the Quality Assurance department, I handled specialized legislation which demanded skill sets which are totally foreign to a science undergraduate. Hence, this was challenging at times.

As I was a less technical person, it was a lot for me, but with the help from my mentor and other QA specialists, it went really smoothly. However, I was really glad to be given this opportunity as it gave me the chance to develop myself through the various challenges presented to me

What Was Learned From the Experience

I have learned how a private sector operates, who oversees what, and how to network with the different departments I've been exposed to.

The most valuable experience has been the hands on work I've been exposed to. I've been able to able the information learned in university courses to real life problems and truly understand the programs and tools that aid in the professional world.

Though industrial training provides students with work experience that prepares them for the work place, but the major advantage is that it helps students discover their areas of career interests which they are most likely to pursue.





MACFOOD SERVICES (M) SDN BHD

Introduction

- ✓ One of the facilities in Malaysia under Marfrig group and Keystone Foods
- ✓ Animal protein and fresh produce producer

Job Scope

- Data keeping
- Trials and Data collecting
- HHP practice

Supervisor Details

Mr. Gopinath Chinasamy
(Production Manager)
Industry Supervisor

Mr. Hashim Bin Baharin
(Faculty Supervisor)

Things Learned

- ❖ Process of making from the very beginning to the end
- ❖ Ingredients used

Priceless Experience

- The experience
- The knowledge
- The people



Allowance Provided !

Daashna Suppiah



3SSCC
012-3174007

Hashiza binti Muhammad
399CA
A159C0053

INFOGRAPHIC OF INTERSHIP

SSCU3915

Short Semester / Session 2017/2018



Analysis and Test Method (Training Scope)



Identification of Tobacco Leaves and Cloves by Gas Chromatography-Mass Spectrometer (GC-MS) and Microscopic Examine

Detection of surfactant in sample.

Identification of surfactants:

- Weatherburn test
- Van Der Hoeve Test

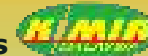
Qualitative Chemical test for sugars by Paper Chromatography

Determination of ash in sample and Identification of Inorganic pigments by Scanning Electron Microscope (SEM)

Determination of non-volatile matter in sample and Identification of the binder by Fourier Transform-Infrared (FTIR) spectroscopy

Introduction

My industrial training was completed in **Department of Chemistry Malaysia (Petaling Jaya)**. I was placed in the **Classification Tariff Section's Laboratory in Center of Analysis for Industry and Custom Tariff**. Every analysis and test methods conducted to prove that samples shall be:



- Classified as they consisted of the materials or component which gives them their essential character.
- Determined according to the terms of the headings and subheading.
- Determine the composition of goods for tariff code classification.
- Purposes for collecting government revenues.

Various types of samples



Instrumentations



Experiences and memorable moments ☺



Allowance: **Y** / N

RM15/day

SUPERVISOR (DEPARTMENT OF CHEMISTRY MALAYSIA)
Dr. Shailini Ashoka
Head of Tariff Classification Section
Center of Analysis for Industry and Custom Tariff
Department of Chemistry Malaysia, Petaling Jaya

SUPERVISOR (FACULTY OF SCIENCE)
En. Hashim Baharin
Lecturer in Department of Chemistry
Faculty of science
University Technology of Malaysia

How to contact
No. Tel: 603 7985 38
No. Faka: 603 7985 38
e-mail: norfarizansakinia@utm.my

SIME DARBY RESEARCH SDN BHD

LIYANA AQILAH BINTI ABD KARIM
SSCC

R&D CENTRE CAREY ISLAND

Food Safety Laboratory

ABOUT COMPANY

Sime Darby Plantation is the largest producer of Malaysian Sustainable Palm Oil (MSPO) and the parent company of Sime Darby Research Sdn Bhd. Here, they committed towards developing, applying and transferring relevant knowledge, research findings and technologies to improve the plantation yields, milling processes and customize the downstream products. I was assigned to Food Safety Lab that was managed under lab services department.

THINGS LEARNED

- Hands-on practice on handling instruments
- Exposed to the method used for testing
 - Know the Lab management system
- Explored on the production of oil and other products produced

CONTACT DETAILS

T: +(603) 31202311 ext 299

E: nurlila.samad@simedarbyplantation.com



JOB TRAINING SCOPE

- Analysis of Glyphosate in Pure Poison
- Analysis of Paraquat in Edible Oil
- Analysis of Organochlorines compound in water
- Training on Laboratory Integrated Management System (LIMS)

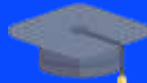
MINI PROJECT

Evaluation of Polycyclic Aromatic Hydrocarbons in Vitamin E by GC-MS and HPLC-FLD Using Agilent Bond Elut Qeschers dSPE Sample Prep

INSTRUMENTATION



INTERNSHIP INFOGRAPHIC JABATAN KIMIA MALAYSIA PJ



ADDRESS:
Jalan Sultan, Pjs 52, 46200
Petaling Jaya, Selangor

OPERATION HOUR
MON-FRI: 7.30AM-5.30PM
SAT,SUN,PUBLIC HOLIDAY: CLOSED
NO. PHONE: 03-7985 3000

LOCATION DEPARTMENT OF CHEMISTRY



BACKGROUND

Department of Chemistry Malaysia consist a network of laboratories throughout Malaysia that provides :

- 1) analytical, investigatory, consultancy and advisory services to government agencies.
- 2) This department provide law enforcement and regulation and the implementation of the programs related to public health in the areas of food and water safety, environment quality, public order and security, consumer protection and occupational safety and health.
- 3) provides technical expertise for the evaluation of supplies for government contracts, the classification of tariff and administration of justices.

METHODOLOGY

EXTRACTION & PURIFICATION STEPS

- Weigh sample
- Extract with Me₂SO (dithionyl ether) (2x)
- Stir for 3 hrs

Extraction

Filtration

- Upper layer: white powder obtained
- Filter, concentrated to 1/3 volume by rotary evaporator. Soxhlet overnight in rotavap

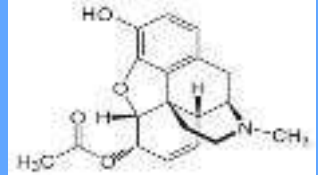
- White powder dry in an oven at 60 °C for 7 hrs
- Filter the white crystals and mix with the powder

Yield

MINI PROJECT



TITLE:
The extraction and purification of monoacetyl morphine hydrochloride



COMPOUND IDENTIFICATION

CHLORIDE TEST

• Add a few drops of AgNO₃ solution to the sample

FTIR-ATR

• Mount sample in a sample holder and perform measurement

GC-MS

• Dissolve sample in a MeOH (1 mg/g) and analyse using GC/MS

PURITY ASSESSMENT



FREEZE-DRIER



QUANTOS



KARL-FISCHER COLOUMETRIC



GC-FID

Purity Assesment Steps



Freeze-dried the purified MAM for 3 days to enhance the substance stabilization.
Perform packaging using Quantos; 50 mg per bottle.



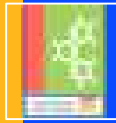
Perform homogeneity studies; dissolve 15 mg of MAM in MeOH (1 mg/g), transfer to GC vials and analyze using GC-FID.



Perform Karl-Fischer analysis to determine the water content in the purified MAM

RESULTS

IR-SPECTRUM



GC-MS chromatogram



GC-FID Chromatogram



CHLORIDE TEST

To test whether solution containing chloride ions using silver nitrate solution .
Result : White precipitate AgCl is formed

SUPERVISOR



DR.SITI NUR NAZATHUL SHIMA BT HASHIM



ACHIEVEMENT



I manage to obtain 115 bottle of pure 6-MAM that going to be distributed to the participant

COMPANY BACKGROUND

Prepared by:
MUHAMMAD HILMAN BIN HAMZAH (SSCC)

ALUMAC INDUSTRIES SDN. BHD.
 LOT 8463, KAMPUNG JAYA INDUSTRIAL AREA
 47000 SUNGAI BULOH SELANGOR

OTHER ACTIVITIES

DEMO ON WASTE MANAGEMENT



ISO INTERNAL QUALITY AUDIT

- Monitor and learn the audit process conducted by my supervisor, Mr. Jimmy while auditing Planning and Extrusion department.

CARING PROJECT

- Monthly interactive game were conducted by trainee for Alumatic worker.

- Established in October 1994
- Specialized in customized aluminium extrusion manufacture
- Currently certified by ISO 9001:2008, quality management system.
- Marketing local and global.

INTERNSHIP INFOGRAPHIC

WHAT I HAVE LEARNT?

1) Calibration

- obj : to ensure all tools work perfectly and according to standard requirement.
- description :
 - checking calibration schedule
 - update record, schedule and master form
 - perform calibration according S.O.P.
 - calibration sticker
 - documentation
- obsolete case : broken, missing, tear tools have to be replaced and recorded.

EQUIPMENT CODE

CODE	INSTRUMENT
C	Vernier Caliper
H	Hardness Tester
HG	Height Gauge
I	Ion 700 Series Bench Top Meter
L	L Square
M	Measuring Tape
MM	Micrometer
P	Protractor
PH	PH Tester
T	Coating Thickness Gauge
W	Weight Scale



VIDEO MEASUREMENT MACHINE



PROFILE PROJECTOR

2) Inspection

- obj : checking the quality of profile and record of inspection required by customer.
- description :
 - random sampling for outgoing profile.
 - 10% inspect to 100% sort for incoming profile from supplier.
 - all sampling have to be recorded
 - defect of profile, sorting
 - checking ongoing profile at extrusion department.

CONTINENTAL TYRE TECHNOLOGY CENTRE MALAYSIA SDN.BHD.



By NORATIQAHT BT MOHD HIRKAM, 3SSCC

CONTACTS

CONTINENTAL TYRE PJ MALAYSIA
ADDRESS: NO2 JALAN TANDANG 46050 PETALING JAYA
PHONE: 0377878888 (EXT 974)
EMAIL: staffing.pj@conti.my

MSE is a one stop analysis provider for all Continental industry worldwide.

In MSE have:

- ❖ Physical testing lab
- ❖ Chemical testing lab

Both lab carried different type of testing

MINI PROJECT

Project: Create FTIR Library for PJ plant Compound & Comparing polymer composition by FTIR AND GC-FID
Process involve:

- 1) Homogenization (using 2-roll mill)
- 2) Acetone extraction (SOXHLET Extractor)
- 3) Digestion in heating block and filter out
- 4) Analyze by FTIR

Instead using FTIR, the project also involve GC-FID for analyze polymer composition in rubber.

Project assigner: CHOONG L.K

- Lab documentation and administrative
 - Organize and update the general documents according to assigned tasks. (delivery order, Tax invoice), Certificate of Analysis and etc.)
- Sample management
 - organizing of incoming sample, safe keeping, delivery of sample and disposal of sample.
- Update spare part checklist
- Conduct testing (support routine testing) Maintain and keep up the cleanliness of laboratory

JOB SCOPE

MSE'S TEAM



✓ Operation of laboratory instruments and equipments

- GC-FID
- FTIR
- ICP-OES
- TGA
- Sulphur & Nitrogen determinator
- Soxhlet extractor
- 2-roll mill,
- Pressure filtration

✓ Proper handling of laboratory apparatus

✓ Communication skills and technical presentation skill

- They help on improving your PowerPoint and presentation. (final presentation for general manager and sometimes for the staffs) *you should experience it!

✓ Time management

- Especially for the project since internship period is short

LESSON LEARNT

SECONDARY STANDARD DOSE LABORATORY AGENSI NUKLEAR MALAYSIA



By: Nur Afiqah Othman (3 SSCC)

INDUSTRIAL APPLICATION: DOSE MAPPING OF JACKFRUIT



INSTRUMENT & SOURCE USED



Cobalt - 60

- ### TASK
- Prepare and study the calibration of reference dosimeter.
 - Determine the output of Gamma Cell.
 - Prepare the calibration high dose of Ceric Cerous dosimeter.
 - Study the calibration of Radiochromic Film FWT-60 with Gamma Cell 220 Excell.

- ### JOB SCOPE
- Preparation of Fricke and Ceric cerous dosimeter.
 - Quality control of Fricke dosimeter.
 - Calibration of four type of dosimeter.

EXPERIMENT



UV-Spectrophotometer



			
FRICKE <ul style="list-style-type: none"> - Reference dosimeter - Traceable - Sensitive - 20 – 400 Gy 	CERIC CEROUS <ul style="list-style-type: none"> - Reactive dosimeter - Low dose: 0.20 – 0.45 - High dose: 0.70 – 0.75 - 500Gy – 50 kGy 	HAIWIP-GAMMACHROMEYB <ul style="list-style-type: none"> - Made from PMMA - Darken when irradiated - 100Gy – 1 kGy 	RADIOCHROMIC FILM FWT-60 <ul style="list-style-type: none"> - Film contains a dye - Change colour when exposed - 500 Gy – 200kGy

NUR KHAIRUNAJWA BINTI
KHAIRUDDIN 4SSCC

INTRODUCTION

A subsidiary of TNB focusing on energy and environmental sector R&D, and services.

Provides a centralised, one-stop centre for technical solutions and innovation.



COMPANY PROFILE

Address: No. 1, Lorong Ayer Hitam, Kawasan Institusi Penyelidikan 43000 Kajang, Selangor
Contact number: 03-89225000

TNB RESEARCH SDN BHD



Stray Gassing in Transformer Oil

- Journal reading
- Data analysis
- Sample preparation
- Lab work
- GC training

Asset Management Policy and Guidelines

- Attend the meeting
- Data sorting/analysis
- Overview of TNBD Primary Equipment
- Extensive Usage of MS Excel

JOB SCOPE

Using Optical Chromatic Transformer Oil Monitoring (OCTOM)

- Sample preparation
- Lab work in UNITEN

Cost Analysis

- Incentive Based Regulations (IBR)

MR DAVID LEE

Lab Manager at My Test Lab
Sdn Bhd
Email: david@mytest.com.my
Phone no: 603-8948 9822

DR NAJI ARAFAT BIN HAJI MAHAT

Department of chemistry,
Faculty of Science, UTM.

Field of Testing



WASTE WATER ANALYSIS



PH, Chemical Oxygen Demand (COD), Biological Oxygen Demand (BOD), Ammoniacal Nitrogen (AN), Total Suspended Solids (TSS), Oil and Grease, Phosphorus, Fluoride, Free Chlorine, Nitrate, Cyanide, Pesticide



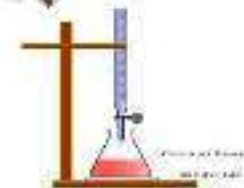
COD

Fluoride, Sulphate, Nitrate, Nitrite, Ammonia Nitrogen, Total Chlorine, Free Chlorine

WATER ANALYSIS

PH, TDS, Conductivity, Turbidity

Alkalinity, Chloride



BOD Dissolved Oxygen Meter



TSS Vacuum Pump



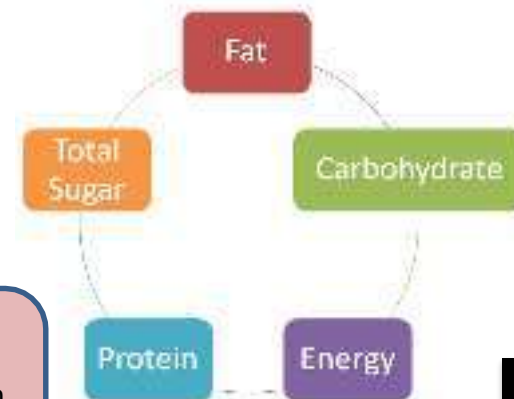
AN Distillation Unit



Phosphorus



FOOD ANALYSIS



Priceless Experience:

I had such a great experience to have my internship at this organisation. I have met such a helpful lab manager and also a capable chemist. This 3 months internship give an idea for me what a great life after graduation.

SB TAPE INTERNATIONAL SDN. BHD.

COMPANY PROFILE

Established on 1977 by late Mr. Toh Sue Bee
Largest manufacturer of self-adhesive tapes in Malaysia
Producers of adhesive, non-adhesive tapes and decorative polypropylene ribbons.

RESEARCH & DEVELOPMENT

This department are divided into two division (glue and tape) which focuses on

- evaluation of raw material and product
- coordinate application test
- monitor performance

ORGANIZATION CHART

R&D (TAPE DIVISION)



MAIN TASKS AND PROJECTS

Analyzing and perform

- lab coating procedures
- adhesive feasibility of glue mixture
- standard profiling by test its performance
- given project with specific glue

INSTRUMENTATION



VISCOMETER

STIRRING MACHINE

HOLDING POWER

EXPERIENCES



CHEMSHERPA TRAINING

HANDLING INSTRUMENTS
(TENSILE MACHINE)

COMMUNICATIONS

CONTACT DETAILS

☎ 038946 3600 / 038946 3712
 ✓ hr-2@sbgroup.com.my
 📍 Lot.1812, Jalan KPB 1, Kawasan Perindustrian Kg. Baru Balakong, 43000 Seri Kembangan



PETRONAS

COMPANY DETAILS

PETRONAS Research Sdn Bhd, Lot 3288 & 3289, Off Jalan Ayer Itam, Kawasan Institusi Bangi, 43000 Bandar Baru Bangi, Selangor.

Phone No: 03-8928 1000, Fax : 03-89281000

PERSONAL DETAILS

Syahidin Arsyad B. Mohd Bukhari
A15SC0283
3 SSCA

SUPERVISOR DETAILS

Organisation: Shamsina Bt Sabdin
Office : 03-89281153
Email: shamsin@petronas.com
Faculty: Dr. Naji Arafat Hj. Mahat

PROJECT TITLE

Ceramic Membrane For Nitrogen, N_2 Removal

MINI PROJECTS

1. Study the effect of stirrer speed during aging process from the synthesis of pure phase of NaX zeolite.
2. Study the effect of pH content forwards formation of pure NaX zeolite.

TRAINING SCOPE

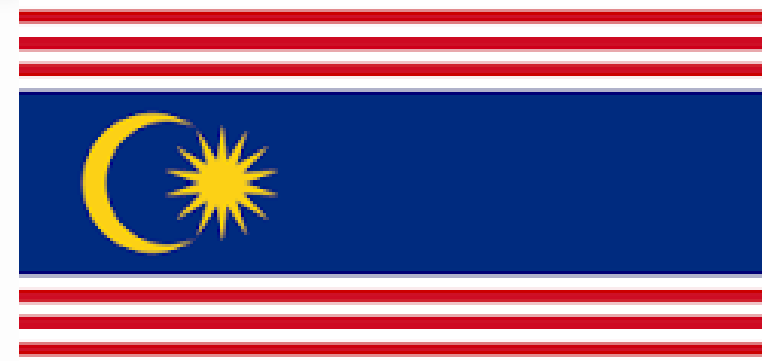
- ✓ Literature reviews
- ✓ Permeation Test
- ✓ Synthesis of Zeolites
- ✓ Characterisation of synthesized zeolites
- ✓ Data analysis

INSTRUMENTATIONS

- SEM Hitachi TM3000
- MSH-20D WiseStir
- HI 8424 pH Meter

OTHER ACTIVITIES

- Safe handling of chemical training
- HSE Weekly Inspection: Hazard Hunt



K U L

ABOUT ME

SUMARNI BT SYAHRUDDIN
A15SC0280
3 SSCA- CHEMISTRY

SUPERVISORS

UTM: DR RAJA KAMARUZAMAN
BIN RAJA IBRAHIM
(FACULTY OF SCIENCE)

INDUSTRIAL: PN NOR SURIATI BT
AHMAD
(SECTION HEAD OF QC (AMB))

PROJECTS

- 1) BLACK PARTICLES STUDY
 - VACCUM FILTRATION TECHNIQUE
 - FTIR
- 2) RAW MATERIAL HAZARD ANALYSIS
 - CoA and VIPD REFERRED
 - USING MICROSOFT EXCEL

PRICELESS EXPERIENCES

- BEEN EXPOSED TO JOB NATURE OF CHEMIST IN FOOD COMPANY.
- PASSED EXCELLENTLY THE YEARLY BASIC SENSORY TEST IN QC.
- GOT TO WORK WITH A HARWORKING AND HELPFUL TEAMWORK.



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

Eat Well, Live Well.

Aji
AJINOMOTO

ABOUT COMPANY & QUALITY CONTROL SECTION

- ❖ AJINOMOTO (MALAYSIA) BERHAD (AMB) IS THE FIRST JAPANESE COMPANY TO BE SET UP IN MALAYSIA .
- ❖ IN QC SECTION: PROVIDE TESTING AND INSPECTION ON ROUTINE PRODUCTION OF FOOD SAMPLES, MONITORING ON WASTE WATER TREATMENT PLANT AND ON SITE TESTING OF PRODUCTION SITE &A SUPPORT TO FACTORY BY MONITOR HYGIENE MONITORING, COMPLAINT INVESTIGATION AND HIGHLIGHT PRODUCT QUALITY TREND.
- ❖ TEL: 03- 7980 6958

MY INTERNSHIP JOURNEY



FILTER PAPER WITH/WITHOUT BLACK PARTICLES FTIR SCREENING TO IDENTIFY



SAMPLING PROCEDURE



PROBLEMATIC PRODUCT CHECKING AT OTHER DEPARTMENT

JOB/ TRAINING

- INVOLVED IN SAFETY & HEALTH, SENSORY AND ERGONOMIC TRAINING.
- WEIGHING AND PIPEETING TRAINING.
- CHEMICAL, SENSORY & MICROBIOLOGY LABORATORY ANALYSIS TRAINING.



N E G



Nabbir Laboratory

Nur Farah Dina Ajid
3 SSCC

Job Scope

Wastewater
Quality
Analyses

Things Learned

Lab Skills
Presentation
Skills

Major Activities

- Provide testing for wastewater sample
- Industrial Consultation

Atomic Absorption Spectrometry
UV Spectrophotometer

Instrumentation

Ms Kalaivani A/P
Palachandran
(Senior Chemist)

Industrial Supervisor

Introduction





M E L



Mamee Double- Decker, better known simply as MAMEE is a Malaysian based company with interests in the manufacturing, marketing and distribution of snack foods, beverages, and other products, that exports to around 100 international countries.



Throughout the three months period of internship in factory of MAMEE Company, the real working environment in Food Science and manufacturing field were being exposed and experienced. In the factory, the experiences as the Quality Assurance, the task of incoming raw materials checking, inspection production line, conducting lab analysis, issue non-conformance report (NCR) and resample have provided better understanding of the Quality Assurance responsibility.



SV : Ms Nadia Bt Salleh
016-6604740

SYARIKAT AIR MELAKA BERHAD (SAMB)

Experiences gained from SAMB Team:

- Handling different water quality test in laboratory such as total coliform bacteria test, jar test, turbidity test and pH test in raw water as well as in treated water.
- Do water sampling with Quality Team.
- Do instruments calibration to ensure high accuracy and precision.
- Learning water treatment process via conventional and Dissolved Air Floatation (DAF) method thoroughly.
- Chemicals dosing calculation used in water treatment plant for instance, Sodium Silicofluoride, Chlorine gas and Calcium Hydroxide.
- Learn about Electrochlorination System (EC).
- Mini project entitled effectiveness of using primary coagulant Poly Aluminium Chloride (PAC) in reducing water turbidity.



**Jabatan
Pengeluaran,
Jalan Padang
Keladi,
76100,
Durian
Tunggal,
Melaka.**

**Monthly
allowance is
provided!**



**Prepared by; Nurul Farah Syaheyra Binti
Rahmat (3SSCA)**



J O H

MY JOURNEY OF INTERNSHIP AT ENVILAB SDN BHD



NAME: AIDA AMIRAH BINTI MOHD SALLEH
COURSE: BACHELOR OF SCIENCE INDUSTRIAL CHEMISTRY
MATRIC NO: A15SC0008 (3SSCC)

INTRODUCTION:

Over a span of more than 30 years, ITS acts as a fully integrated scientific solutions group in Asia, with core businesses in Water & Environmental Management, Scientific & Medical products, and Healthcare Services. It mainly provides high quality products, services and solutions through R&D and environmental conservation in order to improve a better quality of life.



TEAM



WORK



TEAM WORK

WHAT I LEARNED

JOB SCOPE(Daily Task):

- BOD Analysis
- AN Analysis
- TN Analysis
- PH and TDS Analysis
- Preparing Certificate of Analysis (COA)
- Auditing and Filing
- Preparing Delivery Order

PICTURES



CONTACT

NAME : VOON WAN SIN
MOBILE: 011-21793950
EMAIL: wsvoon@its-envilab.com

ADDRESS OF ORGANIZATION:
ENVILAB SDN BHD
38, JALAN PINGAI, TAMAN PELANGI,
80400 JOHOR BAHRU,
JOHOR, MALAYSIA.

INTERNSHIP

AYU FATINI BINTI YUSOP
A15SC0024



Prisma Laboratory (M) Sdn. Bhd. (1121612-X) is a local company of environment, health and safety which began their operation since year 2015.

Contact details : +607-556 5050

Address of company : No 36-01, Jalan Kempas Indah 1/1, Taman Kempas Indah, Johor Bahru, Johor.

Company's website : <http://www.prisma-lab.com.my>

Email address : info@prisma-lab.com.my

There are services like testing and analysis all types of samples, monitoring noise and ambient air and also sampling all kind of samples such as river and marine water.

INDUSTRIAL SUPERVISOR

Name : MADAM NUR SHAMIMI BINTI MOHD RUSLI

Position : LABORATORY MANAGER

Department : LABORATORY DEPARTMENT

ANALYSIS DONE IN LAB

- AMMONICAL NITROGEN
- TOTAL SUSPENDED SOLID
- CHEMICAL OXYGEN DEMAND
- BIOCHEMICAL OXYGEN DEMAND
- HEAVY METALS ANALYSIS
- OIL AND GREASE

INSTRUMENT IN LAB

- GC-MS
- HPLC-PDA
- GC-FID
- ICP-OES

SAMPLES

- WATER
- SOIL
- BLOOD
- URINE
- FOOD
- CHEMICALS





Karex Industries Sdn. Bhd. (KISB) manufactures medical devices. KISB manufactures male condom, personal lubricant and transducer cover. The company was founded in 1988 by the Goh family. It is based in Pontian, Johor Malaysia.



What I learned?

- Team work
- Communication skill
- Multitasking

INFORMATION

NAME: HAMIZAH BINTI MAIDIN
NO. MATRIC: A15SC0052
COURSE: BACHELOR OF SCIENCE (INDUSTRIAL CHEMISTRY)

JOB SCOPE

- Establish work instruction with pictorial work flow.

INDUSTRY SUPERVISOR:
MS. LIM LAI PENG

NO. TEL:
012-3270682

EMAIL:
lplim@karex.com.
my

Eurofins NM Laboratory Sdn bhd

- 27, Jln Impian Emas 5, Taman Impian Emas, 81300, Skudai, Johor
- Testing Laboratory (DOSH & DOE)



2017 / 18 - 3



SSCU 3905 - 01
HEW SIEW N
A15SC0055



LOTTE CHEMICAL TITAN (M) SDN BHD

ISAIAH CHEONG YANG SHENG (3-SSCC)
SUHAIMI BIN ABDUL (OM SENIOR MANAGER)
DR. SUSILAWATI BINTI TOEMEN (UTM-FS)

LCT, which was established in 1989, currently is Malaysia's first and largest integrated producer of olefins and polyolefins, and one of the largest polyolefins producer in South-East Asia (SEA). LCT was acquired by Lotte Chemical Corp., a listed company forming part of the Lotte conglomerate of Korea, in 2010 and meanwhile had becoming one of Lotte Chemical Corp.'s largest overseas subsidiaries.

TRAINING SCOPE & INSTRUMENTATION



Karl Fischer coulometric moisture analysers (solid and liquid phase)



OCS PS25C pellet inspection system



Carver hand press heater and compression moulder



Retsch sieve and sieve shaker



Melt indexer



Contact of Organization
Tel: +603-20934222
Email: Inquiry-general@lottechem.my



INFOGRAPHIC OF INTERNSHIP



PERSONAL DETAILS

JUANI BINTI IBRAHIM
3 SSCC (INDUSTRIAL CHEMISTRY)
12 WEEKS INTERNSHIP AT CCM CHEMICALS SDN BHD PASIR GUDANG LABORATORY (TECHNICAL DEPARTMENT) RESEARCH AND DEVELOPMENT

SUPERVISOR DETAILS (FACULTY)

DR. SEE HONG HENG
FACULTY OF SCIENCE
UNIVERSITI TEKNOLOGI MALAYSIA

SUPERVISOR DETAILS (INDUSTRY)

LEE KI YIP
SENIOR EXECUTIVE,
APPLICATION TECHNOLOGIST
lee-ki-yip@ccmberhad.com

COMPANY BACKGROUND

JALAN PERAK SATU KAWASAN PERINDUSTRIAN PASIR GUDANG
GOVERNMENT LINKED COMPANY
PERBADANAN NASIONAL BERHAD (PNB)
PRODUCT:



EXPERIENCES

- Build career skills
- Lesson learned
- Networking
- Safety awareness
- Work culture
- Handling apparatus and instruments

PROJECT

ALUMINUM CHLOROHYDRATE (ACH)
PROJECT
Variable controlled:
•TEMPERATURE
•AMOUNT OF ACID
•AMOUNT OF WATER

PROFILES & BACKGROUND

LIM SHUH XINE

Studying Bachelor of Science
(Chemistry) in UTM
✉ shuhxine@gmail.com



INDUSTRIAL SUPERVISORS



DR. LIEW KOK FUI
DR. SINI GEORGE
Lecturer in School
of Pharmacy,
University of
Reading Malaysia



FACULTY SUPERVISOR

DR. YAP YUNG SZEN

Lecturer in Department of
Physics, Faculty of Science,
University Teknologi Malaysia
(UTM)



COMPANY BACKGROUND

University of Reading Malaysia

☎ + 60 (7) 268-6200

📍 Persiaran Graduan Kota Ilmu, Educity 79200
Iskandar Puteri Johor, Malaysia.

✉ uor-malaysia@reading.edu.my



RESEARCH TALK & SEMINAR



INSTRUMENTATION



Rotavapor



UV-Vis



Ultrasonicator

FT-IR

TRAINING SCOPE

- Writing of Review Paper
- Preparation of chemicals for student's experiment
- Research lab work
 - ✓ Formation of hydrogel



APPLICATIONS OF HYDROGEL



PRICELESS EXPERIENCE

- Get to know people from different countries
- Hari Raya Celebration
- Video Shooting for University Introduction



Lim Yen Yee
3SSCA A15SC0074

At



大连化学工业

DAIREN CHEMICAL CORP.

Company Profile

- ✓ First overseas subsidiary of Dairen Chemical Corporation established in 1998
- ✓ Main product: VAE, EVACL, EVCL
- ✓ Certified by ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007

Company Contact & Location

- ✓ Tel: 60-7-2565800 ext 240
- ✓ Fax: 60-7-2565799
- ✓ E-mail: service@dcc.com.my
- ✓ Location: PLO 18, Tanjung Langsat Industrial Estate, Mukim Sg. Tiram, 81700 Pasir Gudang, Johor, Malaysia

Supervisor details

Industry: Mr Lee Wei Shen
-Technical Service Engineer
(Construction field)

Faculty: Dr. Norazah bt Basar

R&D Activities and Job Scope

- ✓ Run tests with diff application of VAE
- ✓ Check properties of VAE by using instruments (viscometer, pH meter, auto-titrator, solid content analyzer)
- ✓ Compounding emulsion with other additives
- ✓ Adjust solid content, viscosity, and pH of emulsion



solid content analyzer



auto-titrator



viscometer



pH meter



UTM
UNIVERSITI TEKNOLOGI MALAYSIA



STUDENT'S INFORMATION

Name: Noor Adyanti binti Rusdi
Course: Bachelor of Science
(Chemistry)
Matric No.: A15SC0120

COMPANY INFORMATION:

Day Incorporated: March 13, 1996
Tel no.: +607-386 5991/2/7
Website: www.lipidchem.com
Fax: +067-386 5990/6

COMPANY ADDRESS:

No.9, Jalan Bukit 2, Kawasan MIEL,
Bandar Seri Alam Fasa VII, 81750 Masai,
Johor Bahru, Johor, Malaysia.



Project:

Title

Method validation and verification for Atomic Absorption Spectroscopy(AAS)

Objective

To validate and verify method from AOAC International (20th Edition, 2016, Ch.9 1.09) in determining trace metal (Cadmium) in oil sample using iCE3000 Series.



- ❖ Toll manufacture various beads for fatty acids, animal feed supplements, food emulsifiers
- ❖ Handle toll packing for products
- ❖ Toll manufacture candles, together with packing if required

Instruments Available include tests done during Internships

- **Agilent 7890B (GC)-** determine fatty acid composition
- **ICE 3000 Series (AAS)-** heavy metal test
- **CILAS (Particle Size Analyzer)-** measure size of particle
- **KFT Titrator (Moisture)-** measure percentage of moisture in sample
- **Auto Titrator (Acid Value)-** determine acid value using titration method
- **V-760 Spectrophotometer (UV)**
- **Sieve test**



INTERNSHIP AT
LIPIDCHEM

LIPIDCHEM SDN BHD is a subsidiary of TROPICAL NETWORK SDN BHD. Trading activities predominantly consist of buying, selling and exporting of specialty fats and oils, oleochemicals, hydrogenated oils and fats, essential oils and food stuffs. Among the manufacturing facilities provided are storage tank for raw materials, screening machines, bagging machines, blending facilities, dedicated beading tower, palletizing and warehouse facilities. Raw materials produced for customers are non-animal based, non-GMO, sustainable, bio-degradable and environmental friendly. There are plenty products of interest that can be manufactured, all of which are within the business activities and technical capabilities of Tropical Network Sdn Bhd. However, stearic acid powder is one of the well known product of and been given priority.



SPECTRUM LABORATORIES

Field of Testing

- Water Analysis
- Environmental Air Analysis

Environmental Air Analysis

- AN

Water Analysis



Suspended Solid ICP Sample Prep



Steam Distillation- AN, TN, ON, Phenol



Turbidity



BOD

Spectrum Laboratories (Johore) Sdn. Bhd. provides analytical testing and environmental monitoring services. It offers water analysis, effluent analysis, soil analysis, food analysis, organic analysis, environmental air and research and development services.

Industry SV

Madam Hartini Saini
Lab Supervisor

Faculty SV

Dr Norazah Basar
Chemistry Dept.

Contact

Miss Nor Hidayah
speclabjb@gmail.com

Priceless Experience

Within my three months internship, I have worked with the full support of the senior employees; chemists and lab assistants. Besides, my industry SV also trusted me to handle 70k-worth project for AN and Suspended Solid testing on my own.

NORZULFIKA BT
AMIT
3 SSCA
961212085580
A155C0140



Allowance provided and friendly staffs

Personal details:
Nur Adillah hinti Musa
(3SSCA)

Company's Products:
Fatty acid and glycerine

Natural Oleochemicals Sdn Bhd



Job Scope: assist supervisor as the instrument chemist.

Task: prepare calibration standard solution, prepare samples to be analyse in the instrument and handle the instruments

Project:
Calibration of NIRS

I have got to handle instruments by myself (e.g. ICP-MS, NIRS, GC-MS, GC)

Faculty Supervisor: Dr. Fazira Ilyana A. Razak
Industry Supervisor: Nurul Azyan Arsa'at

Office no:
07-2533719 (Mdm. Nor

PERSONAL DETAIL

Name= Nur Ain Nadirah Binti Abdullah
No matrics= A15SC0146
Course= 3 ssc

Supervisor

Rahmat Yunus bin Ahmad
&
Shafie Osman

Introduction

Uyemura
(Malaysia) Sdn.
Bhd
Plo 553, Jalan
Keluli 8, Zone 12,
81700 Pasir
Gudang, Johor,
Malaysia

Specializes in:
1. electro and
electroless
plating chemicals
2. treatment
chemicals
3. research
centres

What i had been learned

-had been placed at
production line
-had been introduced to
store,production, QA&QC and
facility department
-focus on facility department
that consist of :

1. Waste water treatment
plant (wwtp)
2. Testing a sampling of
ammonia and IETS
analysis
3. Monitoring scrubber
4. Testing hardness water
supply in boiler
5. Take a reading on RO
system

Experiance

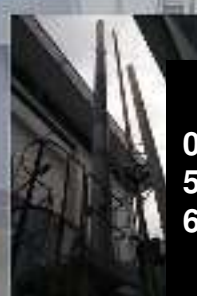
-i can learned on how the wastewater
treatment plant process in a large scale which
benefit is can use in others industry in future
career world.

-know what and how the scrubber works and
also monitoring the scrubber

CASE STUDIES

-On jar test which about coagulation process.

-purpose by add a chemical which produces positive charges
to neutralize the negative charges on the particles. Then the
particles can stick together, forming larger particles which
are more easily removed.



INTRODUCTION

Department of Chemistry Malaysia provides analytical, scientific and consultation services with respect to criminal justice system, public safety, public health, environment quality, consumer protection, evaluation of government supplies and laboratory inspection.

**NUR FARAHIN
BINTI FARROK
A15CS0163
3 SSCA**

JABATAN KIMIA MALAYSIA (JOHOR Branch)

**CIK FARIZSYA HANI BINTI HAMMIM
HEAD OF FOOD SECTION**

PRICELESS EXPERIENCE

- ✦ Learn new things
- ✦ Hand on instruments
- ✦ New environment and friends

- Online Registration at Jabatan Kimia Malaysia portal:
<http://www.kimia.gov.my/v3/my/>
- Allowance provided (RM15/day)



INTERESTING PART

- ✦ Learn the procedures on receiving and returning samples
- ✦ Analysis for the parameters; Formaldehyde, Benzoic Acid, Synthetic Colorings, Heavy Metals, Total Nitrogen, Sulphur Dioxide & Calcium



TRAINING SCOPE

(Food Section)

Monitoring the Safety and Quality of Food

MINI PROJECT

Verification of heavy metal (Cadmium) by AAS



INSTRUMENTATIONS

- ✦ Atomic Absorption Spectrometer
- ✦ High Performance Liquid Chromatography
- ✦ Gas Chromatography
- ✦ Ultraviolet-Visible Spectrophotometer



INFOGRAPHIC

INTRODUCTION

NAME OF COMPANY

UYEMURA (MALAYSIA) SDN BHD

ADDRESS

Plo 553, Jalan Keluli 8, Zone 12, 81700 Pasir Gudang, Johor, Malaysia
Contact: +607 251 1566
Fax: +607 252 0631

WHAT THIS COMPANY DO

Manufacturing of electro and electroless plating chemicals and treatment chemicals

NUR FATIHAH BT
YUSOF
3 SSCC
A15SC0169



EXPERIANCES

I had been placed at R&D Department for this 12 weeks. A lot of things that had been learned especially about the electro and electroless plating. Besides, I had been assigned to test quite a lot of sample from the customers using basic skill which was titration and also other method. In addition, had a chance to learn and run various type of instrumentation at this company such as AAS, UV-Vis, CE, IC, Salt Spray Chamber and many more. I also had the opportunity to join the First Aid Training from Bulan Sabit Merah Johor.



FACULTY SUPERVISOR

DR SUSILAWATI BINTI TOEMEN
(LECTURER FACULTY OF SCIENCE,
UTM)

INDUSTRIAL SUPERVISOR

Dr Wong Jia Tian
(R&D Manager OF Uyemura (Malaysia)
Sdn. Bhd)



MINI PROJECT

Title :

Evaluation on Corrosion Performance of HEBAT CHROME CMP and NIMUDEN MVP Towards Electroless Nickel Application

Objectives :

To evaluate corrosion performance of HEBAT CHROME CMP and NIMUDEN MVP towards Electroless Nickel application.



THING I LEARNED

Get creative in solving the problem

Working smart under pressure

Familiar with working environment

Improve communication skill

INSTRUMENTATIONS



CE



AAS



SALT SPRAY CHAMBER

NURUL AINI BINTI MAT SIDIK

3SSCC|UTM|17/18

SPECTRUM LABORATORIES JOHORE

SPECTRUMLABS is fully committed to providing high quality and efficient services to its clients. On top of that you can be assured of total reliability and strict confidentiality at all times. We are accredited under Skim Akreditasi Makmal Malaysia (SAMM) by the Department of Standard Malaysia to MS ISO / IEC 17025 for chemical testing.
speclabjb@gmail.com

SPECTRUM LABORATORIES
(JOHORE) SDN. BHD.
18A, JALAN MOLEK 2/5,
TAMAN MOLEK,
81100 JOHOR BAHRU, JOHO



GET TO LEARN AND
HANDLING THE
INSTRIMENT

WORK WITH WATER
SAMPLES FOR
CHEMICAL TESTING



GET TO LEARN AND
HANDLING THE
LABORATORY
APPARATUS



being for Intenship at spectrum lab was enjoyable for me and got a lot to learn especially in doing chemical testing with great team mates there!!

INTERNSHIP AT



SUNWARD Pharmaceutical

PREPARED BY:

NURUL SAKINAH BINTI ISMAIL

THIRD YEAR STUDENT

BACHELOR OF SCIENCE (INDUSTRIAL CHEMISTRY)

A BRIEF HISTORY OF SUNWARD PHARMACEUTICAL

- INCORPORATE IN 1968
- AIM: IMPROVE HEALTH AND QUALITY OF LIFE
- ONE OF LARGEST GENERIC PHARMACEUTICAL MANUFACTURERS IN SINGAPORE WITH FACTORY IN MALAYSIA(1992)



SUNWARD PRODUCTS

TABLET	SYRUP	CREAM
METFORMIN TAB (BLISTER)	PAEDICOF SYRUP	AQUEOUS CREAM
SUNVASC 5 TABLET (BLISTER)	DECONDINE SYRUP	BETAMETHASONE CREAM
SUN-GLIZIDE TABLET (BLISTER)	LYCOMINE SYRUP	CROTAMIXONE CREAM
SUNPROX 550 TABLET (BLISTER)	PHOLCODYL FORTE SYRUP	MICONAZOLE CREAM
PRENAVIT TABLET	SUNEX COUGH SYRUP	LOBESOL CREAM
SUNOLUT TABLET	SUNTUSS SYRUP	ZORAX CREAM

RESPONSIBILITIES

- ASSAY TEST
- DISSOLUTION TEST
- DOCUMENTATION
- STABILITY SAMPLE
- DISPOSE SAMPLE WASTE

ASSAY TEST

- Analytical procedure to qualitatively assess or quantitatively measure presence, amount or functional activity of target analyte
- Method allows purity, safety and quality
- Detection method (Fluorometry/ Spectrophotometry)



DISSOLUTION

- Process of dissolving a solute into a solvent to produce solution
- Importance: Characterize performance of oral solid dosage forms
- Rate or extent of drug absorption are determined by dissolution from dosage form.



DOCUMENTATION & STABILITY SAMPLE

- DOCUMENTATION
 - Arrange and compile report
 - Key in data for report
 - File report
- STABILITY SAMPLE
 - Help arrange in chamber
 - Help take out sample for test

DISPOSING SAMPLE WASTE

- Dispose monthly stability sample waste for tablet, syrup and cream
- Dispose stability sample waste
- Dispose QC test sample waste for tablet, syrup and cream



Water Quality Department of SAJ Ranhill Sdn. Bhd monitors and ensures the quality of water supplied to customers are within the guideline set by the Ministry of Health



Gas Chromatography-Mass Spectrometry

Industry Supervisor
Mrs. Sa'diah bt Ad Ghapur



Faculty Supervisor
AP. Dr. Md Supar bin Rohani



Auto-titrator for Hardness and Chloride



Aerator at Sri Gading Water Treatment Plant



Analyse sample for parameter colour



Taking coagulated water for Snap Test

Field of Training

1. Analyse water samples from Service Reservoir Outlet, Treatment Plant Outlet and Reticulation System
2. Mini project on comparison between two different brands of reagents, HACH and Lovibond
3. Site visit to different systems of treatment plant (LRA Tengku, LRA Semangar, LRA Gunung Ledang, LRA Gunung Pulai, LRA Sg. Johor)



Gunung Ledang Dam



Jar Tester



Ammonia samples



Mini Project

Address:
Makmal Pusat SAJ Ranhill Sdn. Bhd.
Lot 4705, Kawasan Perindustrian Sri Gading
Batu 6, Jalan Kluang, 83300 Batu Pahat, Johor
Contact:
+607-4554726



LEE PINEAPPLE CO. (PTE) LTD



TRAINING INFORMATION:

QA/QC Activities

- Determination of titratable acidity, pH, sugar strength & percentage of solid
- Determination of iron & chlorine concentration
- Double seam inspection
- Microbiological testing

Apparatus

- ◆ Refractometer
- ◆ Colorimeter test kit

ORGANISATION BACKGROUND

Lee Pineapple Co. (Pte) Ltd has been in the pineapple business for over half of a century. From a small company, they have grown to become a world-famous grower, canner and exporter of canned pineapple and juice.

CONTACTS:

Address:

8 1/2 M.S. Jalan Skudai,
81300, Skudai, Johor, Malaysia

Tel:

07-5561411, 07-5561363

Email:

leepine@lee-pineapple.com

SUPERVISOR DETAILS:

Industry:

Ms. Serene Soh

(QA Executive)

Faculty:

Dr. Fazira Ilyana binti Abdul
Razak

PANG SIEW WOON (SSCC)



**INTERNSHIP INFOGRAPHICS
KAREX INDUSTRIES SDN BHD**

**SHAHRUL EZLAN BIN MOHD ALEFF
3SSCC**

ABOUT COMPANY

Karex started as a family business with a manufacturing capacity of only 60 million pieces of condom per annum. On November 2013 Karex was listed on the Main Market of Bursa Malaysia.

LOCATION

Pontian, Johor (Headquarters)

TRAINING SCOPE

Primary Production Department

SUPERVISOR

En Mohd Asri bin Che Me

Primary Production Manager

THINGS LEARNED IN KAREX

- ⇒ Dipping Process
- ⇒ Latex Compounding
- ⇒ Teamwork and Time Management

PRODUCTS



Condoms

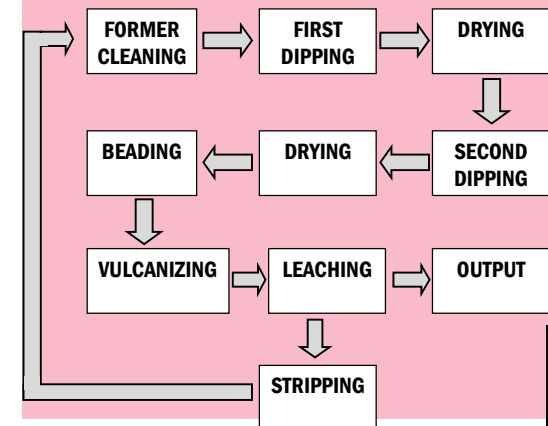


Lubricating Jelly



Probe Cover

CONDOM DIPPING PROCESS



The laboratories provide analytical and environmental monitoring services such as :

- Water analysis -Effluent analysis - Soil analysis- Food analysis-Organic analysis-
Environmental air and noise level monitoring for EIA studies- Water quality
monitoring for EIA studies-Air emission monitoring-Isokinetic stack monitoring-
Wastewater characteristic studies (WWCS)-Treatibility studies- Reseach and
Development (R & D)

SPECTRUM LABORATORIES

BY SITI ASMAH BAHAROM(4 SSCC)

Place : Taman Molek, Johor Bahru

Tel : 07 - 353 9288 / 2088 / 7088

Fax : 07 - 358 1088

Email : speclabjb@gmail.com



Background

- Previously, known as IOI lipid Enzymtec Sdn. Bhd
- Now, known as Bunge Loders Croklaan
- A leading producer as premium quality oils and fats
- 6 continents to serve 100+ countries
- 100% traceability sourced from palm oil



500+ Products

- animal nutrition
- confectionary
- Daily fat alternatives
- Infant nutrition



Training Scope

TDPEC	
Betapol/ Betabase Background	SPD Process
Basic Analysis (Theory)	Dry fractionation
Moisture (MRE)	Neutralization
Peroxide Value (PV)	Solvent Fractionation
Iodine Value (IV)	Contaminant Background
Slip Melting Point (SMP)	QC training (Intro)
Soap Content Analysis	CN/SN2 analysis
Refining Process (Theory)	TG/IRRI analysis
Refining Application	FAC analysis
FTE Process	



Terms and Conditions

- Attached department : R&D
- Training allowance : RM500/month
- Working hours : Monday-Friday
8.30 am - 5.45 pm
- Caupon canteen : RM 115/month

Things Learned

- ✓ Gained knowledge and skills in performing several tests to determine oil quality
- ✓ Informed about instruments used for analysis :
 - GC-MS
 - AAS
 - TD-NMR
 - HPLC
- ✓ Familiarized with std oil refining and several key process in oils and fats
- ✓ Able to practice laboratory work ethics, precaution steps and procedure.

Mini Project

Treatment on oil for contaminants mitigation by using difference concentration of alkaline solution.



Siti Mariah
Bt Abd
Wahab

3SSCC

Contact
Information

Bunge Loders Croklaan Sdn Bhd

PL0 8&9 Jalan Timah, 81700, Pasir Gudang Johor

07-3818888 (tel)

My Internship

synthomer



Liquid Properties Testing



About Me

Siti Nur Aisyah Binti Jalaluddin
3SSCC - Industrial Chemistry

My Project

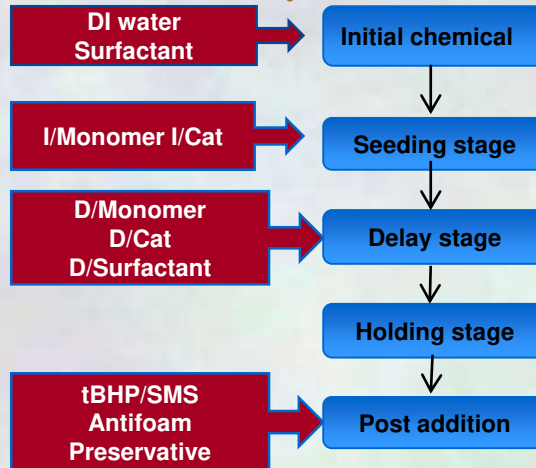
- Prepare of Emulsion Polymerization (21 samples).
- Do liquid properties testing on sample.
- Prepare paints for coating application.
- Test performance of paint coating(19 samples).

Supervisor

UTM - Dr Aemi Syazwani
Industry - Dr Sobhan Bahraeian



Emulsion Polymerization Process



Test of Paint Coating



About Company

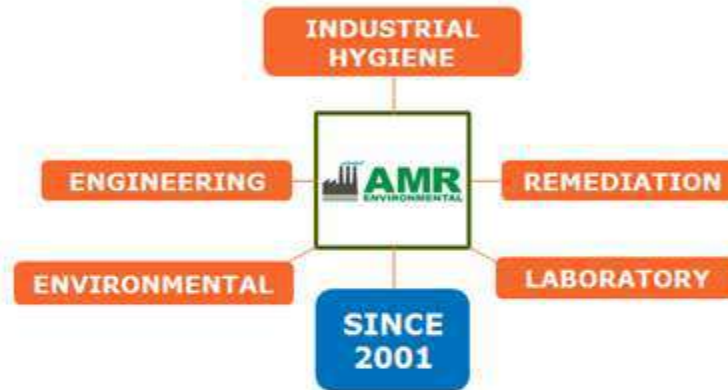
SYNTHOMER SDN. BHD.
1½ MILES, JALAN BATU PAHAT, 86000
KLUANG, JOHOR.

Phone: +6077391116
Fax: +6077391031
Human Resource Department

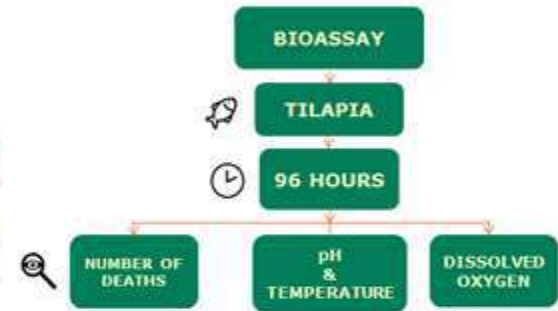




INSTRUMENTS



MINI PROJECT



Siti Nuraini Mohd Sokri
3 SSCA
At AMR: Laboratory Department
At UTM: Chemistry Department



Mr. Farhan Zainal
Lab Manager
AMR Environmental



Mrs. Susilawati
Lecturer
Department of Chemistry UTM



AMR CONTACT

+606 601 4550
amr@enquiry.com.n



WITH ALLOWANCE

Contact:

- Lot 2244, Batu 391/2 Pontian Besar, 82000 Pontian, Johor
- +07-6861996
- karex@karex.com.my



Company Overview

- ❖ The world's largest condom manufacturer
- ❖ Products are principally sold in commercial, tender and OBM markets
- ❖ Manufacture rubber-based medical

TENG CHIN CHAI
(SSCC)
A15SC0292

R&D Activities



✓ **Toluene Swell**



✓ **Viscosity**



✓ **Physical Test**



✓ **Lab Scale Dipping**



✓ **Total Solid Content**



✓ **Total Alkalinity**



✓ **Mechanical Stability**

Job Scope

- Optimize productivity
- Improve product quality
- Cater customer's demands
- Design and develop products

Project



✓ **Determine the suitable work-off level of black compound in latex**



✓ **Develop a new coloured condom**

TRAINING SCOPE

- ❑ To observe and learn production team operations and handling parameters
- ❑ To learn and conduct SPC on devices before manufacturing for quality purposes
 - ❑ To involve in data collection and analysis for process improvement projects

ABOUT ST: TOP 20 GLOBAL SEMICONDUCTOR COMPANY LEADING IN INTEGRATED DEVICE MANUFACTURING FOR AUTOMOTIVE, GADGETS, INFRASTRUCTURE AND GREEN TECHNOLOGY

SKILLS GAINED DURING INTERNSHIP:

- ❖ ANALYTICAL SKILL
- ❖ DECISION MAKING SKILL BASED ON CRITICAL THINKING
- ❖ IMPROVED COMMUNICATION
- ❖ ENHANCED PRESENTATION SKILL



Smart Threads



Smart Industry



Smart Home & City



life.augmented

Experiences from
VELMURUGAN
3 SSCC

Type of packages produced in ST Muar



QFN



WLCSP



BGA



WLCSP



QFN



BGA

TASKS DURING INTERNSHIP

- Carry out SPC for on-hold engineering lot
- Check for cavity structure to improve molding process
- Do cavity mapping activity to locate reject pattern
- Conduct a mini project on removing a SPC control from assembly area

Instrumentation



Hisomet



Smart scope



Scanning Acoustic Microscopy

Contact Person:

Ms. THURGA CHANARAN
Email: thurga.chanaran@st.com
Address: TANJUNG AGAS INDUSTRIAL AREA, P.O. BOX 28, 84007 MUAR, JOHOR, MALAYSIA.



T E R

NOR SHAHIRAH ISMAIL
A15SC0130
SSCC



GAS PROCESSING PLANTS SANTONG, PETRONAS GAS BERHAD.
KM 8, KG. TOK ARUN, OFF JALAN SANTONG,
23100 PAKA, DUNGUN, TERENGGANU.

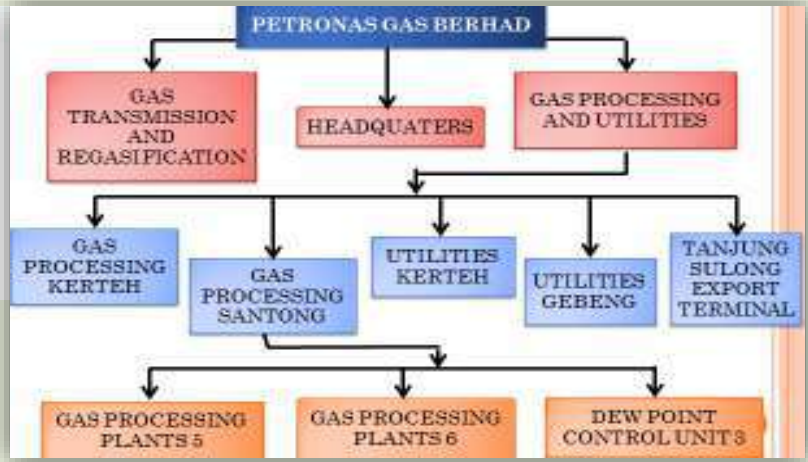


09-8312345

INTERNSHIP INFOGRAPHIC

Training Scope :
 Analyse sample based on its specification before to commercial.

My Supervisor :
 Faculty Supervisor :
Dr. Che Rozid Mamat
 Industrial's Supervisor :
M.Fakaruddin Abdullah



3) Condensate Analysis

4) Contaminant Analysis

1) Water Analysis



Conductivity Meter



pH Meter



Spectrophotometer

2) Gas Chromatography



Density Meter



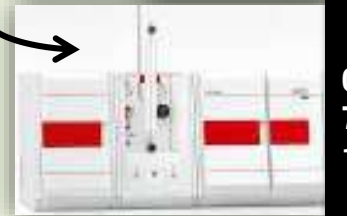
Reid Vapour Pressure



Mercury Analyser



Analytik Jena - total sulphur



WATER TREATMENT PLANT HULU TERENGGANU



Flow Chart Water Treatment Process



THINGS LEARN

- ❖ Communicate efficiently with any level of people at SATU.
- ❖ Gain more knowledge about water treatment process, piping system and billing.
- ❖ Water Quality Analysis
- ❖ Jar Test Analysis
- ❖ Handle instruments such as Jar Tester, Turbidimeter, Ph meter and colorimeter.

INSTRUMENTATIONS



PRICELSS EXPERIENCES

- ❑ Able to work under pressure
- ❑ Adapt to work environment
- ❑ Having good relationship with other training students and workers in SATU
- ❑ Develop soft skills for example when present in front of SATU's chief and supervisor

Supervisor Details
 Industry: En Nik Mohamad Syahmi Bin Khalib
 Faculty: Dr Che Rozid Mamat

The Water Treatment Plant of Hulu Terengganu start its construction on 2004 with the cost 120 million. The operation of water treatment plant start at 26 July 2006. The plant was developed to increase water supply in Hulu Terengganu district. The plant's design can support 55 million litres water every day which supply treated water to overall 80 percent of Hulu Terengganu district.



SYARIKAT AIR TERENGGANU SDN.BHD DAERAH HULU TERENGGANU, JALAN KAMPUNG GAUNG, 21700 KUALA BERANG, HULU TERENGGANU

PHONE: 09-6811214

FAX: 09-6812212

WEBSITE: www.satuwater.com.my



NUR ATIKAH BINTI ABDUL KARIM
 A15SC0158
 3 SSCA



Syarikat Air Terengganu Sdn. Bhd. Daerah Hulu Terengganu





S A R



Sarawak
Biodiversity Centre

Sarawak Biodiversity Centre

Contact:

- Tel: 00 6 082 610610
- Email: biosar@sbc.org.my

- Focuses biotechnology research and documentation on traditional knowledge of Sarawak's biological resources

Personal Information

- Name: Tan Jun Hao
- Year/Course: 3 Year in Bachelor of Science, Industrial Chemistry

Organisation Supervisor

Madam Nuraqilah binti Othman
(Research Officer of Analytical Chemistry Laboratory)

Faculty Supervisor

Assoc. Prof. Dr. Ismail Mohamad
(Lecturer of Mathematics Department)

Activities during Industrial Training



Assisting Research Officers' project



Going on a field trip to Bako National Park



Attending international conference



LitSara® exhibition booth duty

Instruments Handled



LC-MS (QTOF) system



Centrifugal Evaporator



Freeze Dryer

AND MUCH MORE...

New knowledge relating to chemistry

Skills to operate analytical instruments

Familiar with the working environment

Experience Gained



S A B

Personal Details

Name : Ray Georgeny
No. Matric : A15SC0237
Course : 3SSCC (Industrial Chemistry)

Supervisor Details

Puan Jessieca Junas (Industry)
Dr.Suhairul Hashim(Faculty)

Introduction to Internship Place

The Department of Chemistry (DOC) is a national organization of laboratories under the Ministry of Science, Technology and Innovation (MOSTI) that provides analytical, investigatory and consultancy services to government agencies for the enforcement of laws and regulation and the implementation of programs related to the public health.

Instrument



D.O Meter



UV-Vis Spectrophotometer



Kjedhal Distillation System



pH Meter

Things I Learned at Work Place

- Monitoring the environment to ensure it follows the regulation that the government already enforce.
- Learned how to conduct analysis based on method that are approved by JKM

Mini Project

VERIFICATION OF APHA METHOD, 21ST EDITION.

METHODS

1. Sulphate
2. pH
3. Conductivity

CRITERIA FOR VERIFICATION

- Recovery of sample must be between 80%-120%
- Coefficient of Variation (CV) must be 20% or lower
- F Test between old data and new data does not have a significant difference.

*All Method (Above) are accepted as all of them fulfil the criteria for acceptance.

DEPARTMENT OF CHEMISTRY (SABAH)

- An agency under the Ministry of Energy, Science, Technology, Environment & Climate Change, of Malaysia
- Provides analysis, investigations and scientific consultancy to government agencies

WATER QUALITY SECTION

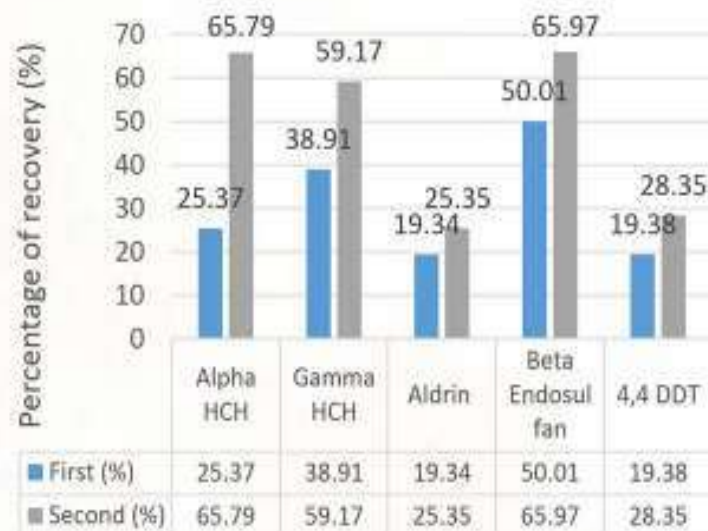
Analysis of COD in water using **UV-Vis Spectrophotometer**
 Analysis of Organochlorine pesticide in water using **GC-ECD**

12 WEEKS PRICELESS EXPERIENCES

- Attend "Merck Day" seminar
- Organise Hari Raya celebration
- Presentation and Talks
- Deep exposure to variety of instruments
- Step by step analysis
- Explanation and guide from industry supervisor, lab assistants

MINI PROJECT

Verification of 5 organochlorine pesticides analytes using GC-ECD



SUPERRVISORS

Industrial Supervisor

Madam Siti Faridah binti Mohd Yunus
 Science Officer
 Department of Chemistry (Sabah)

Assoc Prof Dr Suhairul Hashim
 Lecturer
 Department of Physics

Faculty Supervisor

CONTACTS

Address: *Makmal Negeri Sabah Rose Garden, Jalan Penampang 88300 KOTA KINABALU*
 FB: Jabatan Kimia Malaysia Negeri Sabah
 Phone no: 088 – 259 090 / 088 – 252 112

INTERNSHIP PROGRAMME (2018)

PROFILE

Name: Siti Zuraine Zainol

Matric No.: A15SC0312

Supervisors: Azlinah Ahmad Banjar (DOC)
Dr. Suhairul Hashim (UTM)



TAWAU

KOTA KINABALU

Address: Makmal Negeri
Sabah, Rose Garden, Jalan
Penampang, Sabah, 88300
Kota Kinabalu.

Phone No.: 088 - 259 090

Main Activities

- ✓ Analysis of cigarettes
- ✓ Quantitative test for flour
- ✓ Determination of fuels
- ✓ Determination of sugar
- ✓ Determination of ethanol content in alcoholic beverages
- ✓ Determination of LPG



1

3

4

Things I learned

- Communication skill
- Working skill
- Handling instrument by myself
- Self motivation
- Ability to work under pressure

Department of Chemistry

A national organization of laboratories under the Ministry of Science, Technology and Innovation (MOSTI) that provides analytical, investigatory and consultancy services to government agencies.

2





OVERSEAS

PERSONAL DETAIL



Ai Chia Patrick Melet
A15SC0007

🎓 Bachelor Degree of Science (Pure Chemistry)
✉ elainejiajia96@gmail.com

SUPERVISORS



Assistant Prof. Dr.
Wijitar Dungchai
(KMUTT)



PM. Dr. Zaiton
Abdul Majid
(UTM)



MY INTERNSHIP'S JOURNEY AT



THINGS LEARNED!!!

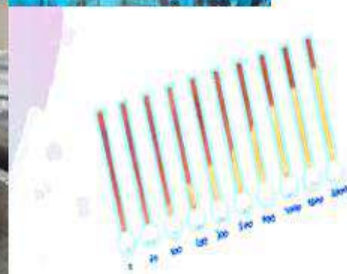


Research Topic: **Gold/Silver Core Shell Nanoparticles on Distance-based Paper Sensor and Application for Colorimetric Sensing of Ascorbic Acid Detection**

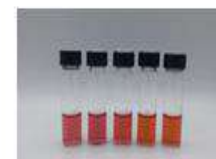
Theory:



Au NPs solution



Distance-based device



Contact: UTM International
Facebook: UTM Mobility Program



Project Topic :

Synthesis of a Novel Benzylalcohol-phenylacetylene for Fluorescent Sensor



ภาควิชาเคมี
Department of Chemistry, Faculty of Science, KMUTT

Abstract :

A novel benzylalcohol-phenylacetylene (3) was successfully prepared from Sonogashira coupling reaction in three steps with a high percentage of yield. The compound 3 acquired the fluorescence properties and showed a fluorescent light under the black light. Nuclear Magnetic Resonance spectrometer (NMR) was applied to characterise this compound. As a result, compound 3 functioned as an alternative fluorescent chemosensor in which there are more research and investigation needed to be conducted in future time.



TEO HWEE LI
3 SSCA
hweeli4156@gmail.com



Organisation SV:

Asst. Prof. Dr. Nakorn Niamnont

Faculty SV:

Prof. Madya. Dr. Zaiton bt Abdul Majid



Connected with people from different countries

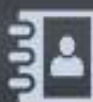
Cultural and language exchange

Explore the real research environment

Be critical in handling the challenges in experiment



Divisions in Department of Chemistry: Analytical Chemistry, Inorganic Chemistry, Organic Chemistry, Physical Chemistry, Biochemistry, Environmental Chemistry and Polymer Chemistry.



International Affairs, Faculty of Science (FSci), KMUTT
126 Pracha Uthit Rd., Bang Mod, Thung Khru, Bangkok
10140, Thailand.

Tel: +662 470 8974

Email: inter.sci@mail.kmutt.ac.th



LIST OF SSCA & SSCC STUDENTS

PROGRAM	NAME	ADDRESS OF COMPANY	DISTRICT	STATE
SSCC	MOHD SOLIHIM BIN JOHARI	DXN PHARMACEUTICAL SDN. BHD. LOT 1109, MUKIM MALAU DAERAH KUBANG PASU 06000 JITRA KEDAH	JITRA	KEDAH
SSCA	NOORFAINNAS BIN NOORAZMAN	JABATAN KIMIA MALAYSIA CAWANGAN KEDAH SEKSYEN ALAM SEKITAR & AIR JALAN SUKA MENANTI 15150 ALOR SETAR KEDAH	ALOR SETAR	KEDAH
SSCC	SITI NOR AMALINA BINTI MOHD AKHIR	DXN PHARMACEUTICAL SDN. BHD. LOT 1109, MUKIM MALAU DAERAH KUBANG PASU 06000 JITRA KEDAH	JITRA	KEDAH
SSCA	VARANYA A/P VIRAK	JABATAN KIMIA MALAYSIA CAWANGAN NEGERI KEDAH JALAN SUKA MENANTI 15150 ALOR SETAR KEDAH	ALOR SETAR	KEDAH
SSCA	MONISHA DEVI A/P MURAGAN	PGEO EDIBLE OILS SDN. BHD. 2039, TINGKAT PERUSAHAAN TIGA PRAI INDUSTRIAL COMPLEX 13600 SEBERANG PERAI PULAU PINANG	SEBERANG PERAI	PULAU PINANG
SSCC	NG JIA YA	EUROFINS NM LABORATORY (M) SDN. BHD. NO. 78 & 80, LORONG PERDANA SELATAN 1 BANDAR PERDANA 14000 BUKIT MERTAJAM PULAU PINANG	BUKIT MERTAJAM	PULAU PINANG
SSCA	EZIAN AMELYA BINTI ABDUL MALEK	SPRITZER BHD. (CHUAN SIN SDN.BHD.) LOT 898, JALAN RESERVOIR OFF JALAN AIR KUNING 34000 TAIPING PERAK	TAIPING	PERAK
SSCC	NUR ATIKAH BINTI ABDULLAH	EXCELVITE SDN. BHD. LOT 56442, 7 1/2 MILES JALAN IPOH/CHEMOR 31200 PERAK	JALAN IPOH/CHEMOR	PERAK
SSCA	SUMITRA A/P VENUGOPAL	TOYO TIRES MALAYSIA SDN. BHD. PT 23101 JALAN TEMBAGA KUNING KAWASAN PERINDUSTRIAN KAMUNTING RAYA 34600 TAIPING PERAK	TAIPING	PERAK

LIST OF SSCA & SSCC STUDENTS

PROGRAM	NAME	ADDRESS OF COMPANY	DISTRICT	STATE
SSCC	ANAMIRA BINTI ZAKARIA	TOP GLOVE SDN BHD GMP MEDICARE FACTORY 29, LOT 4985 JALAN BUNGA RAYA BATU 6 OFF JALAN MERU 41050 KLANG SELANGOR	KLANG	SELANGOR
SSCC	DAASHNA A/P SUPPIAH	MACFOOD SERVICES (M) SDN. BHD. NO. 7, JALNA SS13/5 47500 SUBANG JAYA SELANGOR	SUBANG JAYA	SELANGOR
SSCA	HASNIZA BINTI MUHAMMAD	JABATAN KIMIA MALAYSIA JALAN SULTAN 46200 PETALING JAYA SELANGOR	PETALING JAYA	SELANGOR
SSCC	LIYANA AQILAH BINTI ABD KARIM	SIME DARBY RESEARCH SDN. BHD. R & D CENTRE KM 10, JALAN BANTING-KELANANG P.O BOX 207 42700 BANTING SELANGOR	BANTING	SELANGOR
SSCC	MOHAMAD HASIF BIN SHAMSUDDIN	TNB RESEARCH SDN. BHD. NO.1, LORONG AYER HITAM KAWASAN INSTITUSI PENYELIDIKAN 43000 KAJANG SELANGOR	KAJANG	SELANGOR
SSCC	MOHAMAD SYAZWAN BIN SAFARUDIN	JABATAN KIMIA MALAYSIA PUSAT LATIHAN KIMIA MALAYSIA TINGKAT 3, BANGUNAN PERSEKUTUAN JALAN SULTAN 46661 PETALING JAYA SELANGOR	PETALING JAYA	SELANGOR
SSCC	MUHAMMAD HILMAN BIN HAMZAH	ALUMAC INDUSTRIES SDN. BHD. LOT 8463, KAMPUNG JAYA INDUSTRIAL AREA 47000 SUNGAI BULOH SELANGOR	SUNGAI BULOH	SELANGOR
SSCC	NORATIQA BINTI MOHD HIRKAM	CONTINENTAL SIME TYRE PJ SDN. BHD. QUALITY MANAGEMENT DEPARTMENT MANUFACTURING PLANT NO. 4, JALAN TANDANG 46050 PETALING JAYA SELANGOR	PETALING JAYA	SELANGOR
SSCC	NUR AFIAH BINTI OTHMAN	AGENSI NUKLEAR MALAYSIA KEMENTERIAN SAINS, TEKNOLOGI & INOVASI MALAYSIA BANGI 43000 KAJANG SELANGOR	KAJANG	SELANGOR

LIST OF SSCA & SSCC STUDENTS

PROGRAM	NAME	ADDRESS OF COMPANY	DISTRICT	STATE
SSCC	NUR KHAIRUNAJWA BINTI KHAIRUDDIN	TNB RESEARCH SDN. BHD. NO.1, LORONG AYER HITAM KAWASAN INSTITUSI PENYELIDIKAN 43000 KAJANG SELANGOR	KAJANG	SELANGOR
SSCA	NURUL IZZATI BINTI HAMDAN	MyTEST LAB SDN BHD. A-3-G, BLK A, PUTRA WALK, JALAN PP25 TAMAN PINGGIRAN PUTRA SEKSYEN 2, BANDAR PUTRA PERMAI 43300 SERI KEMBANGAN SELANGOR	SERI KEMBANGAN	SELANGOR
SSCC	RAZAN SYAZNA BINTI MOHAMAD ARIP	SB TAPE INTERNATIONAL SDN. BHD. LOT. 1812, JALAN KPB 1 KAWASAN PERINDUSTRIAN KG BARU BALAKONG 43300 SERI KEMBANGAN SELANGOR	SERI KEMBANGAN	SELANGOR
SSCA	SYAHIDIN ARSYAD BIN MOHD BUKHARI	PETRONAS RESEARCH SDN. BHD. GROUP RESEARCH & TECHNOLOGY LOT 3288 & 3289 OFF JALAN AYER ITAM KAWASAN INSTITUSI BANGI 43000 KAJANG SELANGOR	KAJANG	SELANGOR
SSCA	SUMARNI BINTI SYAHRUDDIN	AJINOMOTO (MALAYSIA) BERHAD LOT 5710, JALAN KUCHAI LAMA 58200 PETALING KUALA LUMPUR	PETALING	KUALA LUMPUR
SSCC	NUR FARAH DINA BINTI AJID	NABBIR LABORATORY (KL) SDN. BHD. NO.265-267, JALAN NILAI 3/21 KAWASAN PERINDUSTRIAN NILAI 3 71800 NILAI NEGERI SEMBILAN	NILAI	NEGERI SEMBILAN
SSCC	PUTRI NADHIRAH BINTI ROSLIN	NABBIR LABORATORY (KL) SDN. BHD. NO. 267, JALAN NILAI 3/21 KAWASAN PERINDUSTRIAN NILAI 3 71800 NILAI NEGERI SEMBILAN	NILAI	NEGERI SEMBILAN
SSCA	NUR AIN ATIQA BINTI MOHD AMIN	PACIFIC FOOD PRODUCTS SDN. BHD. (KILANG MAKANAN MAMEE SDN. BHD.) LOT. 1, AIR KEROH INDUSTRIAL ESTATE 75450 AYER KEROH MELAKA	AYER KEROH	MELAKA
SSCA	NURUL FARAH SYAHEYRA BINTI RAHMAT	SYARIKAT AIR MELAKA BHD. JABATAN SUMBER MANUSIA TINGKAT 6, WISMA AIR JALAN HANG TUAH 75300 MELAKA	JALAN HANG TUAH	MELAKA

LIST OF SSCA & SSCC STUDENTS

PROGRAM	NAME	ADDRESS OF COMPANY	DISTRICT	STATE
SSCC	AIDA AMIRAH BINTI MOHD SALLEH	ENVILAB SDN. BHD. 38A, JALAN PINGAL, TAMAN PELANGI 80400 JOHOR BAHRU JOHOR	JOHOR BAHRU	JOHOR
SSCA	AYU FATINI BINTI YUSOP	PRISMA LABORATORY (M) SDN. BHD. NO. 36-01, JALAN KEMPAS INDAH 1/1 81300 JOHOR BAHRU JOHOR	JOHOR BAHRU	JOHOR
SSCC	HAMIZAH BINTI MAIDIN	KAREX INDUSTRIES SDN. BHD. LOT 2244, BT. 39 1/5 PONTIAN BESAR 82000 PONTIAN JOHOR	PONTIAN	JOHOR
SSCC	HEW SIEW NI	EUROFINS NM LABORATORY (M) SDN. BHD. 27, JALAN IMPIAN EMAS 5 TAMAN IMPIAN EMAS 81300 JOHOR BAHRU JOHOR	JOHOR BAHRU	JOHOR
SSCC	ISAIAH CHEONG YANG SHENG	LOTTE CHEMICAL TITAN (M) SDN. BHD HR DEPARTMENT PLO 312, JALAN TEMBAGA 4 PASIR GUDANG INDUSTRIAL ESTATE 81700 PASIR GUDANG JOHOR	PASIR GUDANG	JOHOR
SSCC	JUANI BINTI IBRAHIM	CCM CHEMICALS SDN. BHD. PLOT 411, JALAN PERAK 1 PASIR GUDANG INDUSTRIAL ESTATE 81700 PASIR GUDANG JOHOR	PASIR GUDANG	JOHOR
SSCA	LIM SHUH XINE	UNIVERSITY OF READING MALAYSIA SCHOOL OF PHARMACY PERSIARAN GRADUAN KOTA ILMU EDUCITY 79200 ISKANDAR PUTRI JOHOR	ISKANDAR PUTRI	JOHOR
SSCA	LIM YEN YEE	DAIREN CHEMICAL (M) SDN. BHD. PLO 18, JALAN NIBONG 1 TANJUNG LANGSAT INDUSTRIAL ESTATE 81700 PASIR GUDANG JOHOR	PASIR GUDANG	JOHOR
SSCA	NOOR ADYANTI BINTI RUSDI	LIPIDCHEM SDN.BHD. 9, JALAN BUKIT 2, KAWASAN MIEL BANDAR SERI ALAM FASA VII 81750 MASAI JOHOR	MASAI	JOHOR

LIST OF SSCA & SSCC STUDENTS

PROGRAM	NAME	ADDRESS OF COMPANY	DISTRICT	STATE
SSCA	NORZULFIKA BINTI AMIT	SPECTRUM LABORATORIES (JOHORE) SDN. BHD. 18A, JALAN MOLEK 2/5 TAMAN MOLEK 81100 JOHOR BAHRU JOHOR	JOHOR BAHRU	JOHOR
SSCA	NUR ADILLAH BINTI MUSA	NATURAL OLEOCHEMICALS SDN. BHD. PLO 428, JALAN BESI SATU 81700 PASIR GUDANG JOHOR	PASIR GUDANG	JOHOR
SSCC	NUR AIN NADIRAH BINTI ABDULLAH	UYEMURA (MALAYSIA) SDN. BHD. PLO 553, JALAN KELULI 8, ZONE 12 81700 PASIR GUDANG JOHOR	PASIR GUDANG	JOHOR
SSCA	NUR FARAHIN BINTI FARROK	JABATAN KIMIA MALAYSIA CAWANGAN NEGERI JOHOR JALAN ABDUL SAMAD 80100 JOHOR BAHRU JOHOR	JOHOR BAHRU	JOHOR
SSCC	NUR FATIHAH BINTI YUSOF	UYEMURA (MALAYSIA) SDN. BHD. PLO 553, JALAN KELULI 8, ZONE 12 81700 PASIR GUDANG JOHOR	PASIR GUDANG	JOHOR
SSCC	NURUL AINI BINTI MAT SIDIK	SPECTRUM LABORATORIES (JOHORE) SDN. BHD. NO.18A, JALAN MOLEK 2/5 81100 JOHOR BAHRU JOHOR	JOHOR BAHRU	JOHOR
SSCC	NURUL SAKINAH BINTI ISMAIL	SUNWARD PHARMACEUTICAL SDN. BHD. 9, 11 & 17, JALAN KEMPAS 4 TAMAN PERINDUSTRIAN TAMPOI INDAH 81200 JOHOR BAHRU JOHOR	JOHOR BAHRU	JOHOR
SSCA	NUR SYAHIERAH BINTI JOHAN	SAJ RANHILL SDN. BHD. LOT 4704 KAWASAN PERINDUSTRIAN SRI GADING BATU 6, JALAN KLUANG 83300 BATU PAHAT JOHOR	BATU PAHAT	JOHOR
SSCC	NUR SURAYA BINTI OTHMAN	ENVILAB SDN. BHD. 38A, JALAN PINGAL, TAMAN PELANGI 80400 JOHOR BAHRU JOHOR	JOHOR BAHRU	JOHOR
SSCC	PANG SIEW WOON	LEE PINEAPPLE CO. (PTE) LTD. 8 1/2 MILES JALAN SKUDAI 81300 SKUDAI JOHOR	SKUDAI	JOHOR

LIST OF SSCA & SSCC STUDENTS

PROGRAM	NAME	ADDRESS OF COMPANY	DISTRICT	STATE
SSCC	SHAHRUL EZLAN BIN MOHD ALEFF	KAREX INDUSTRIES SDN. BHD. LOT 2244, BT. 39 1/5 PONTIAN BESAR 82000 PONTIAN JOHOR	PONTIAN	JOHOR
SSCC	SITI ASMAH BINTI BAHAROM	SPECTRUM LABORATORIES (JOHORE) SDN. BHD. NO.18A, JALAN MOLEK 2/5 81100 JOHOR BAHRU JOHOR	JOHOR BAHRU	JOHOR
SSCC	SITI MARIAH BINTI ABD WAHAB	IOI LODERS CROKLAAN OILS SDN. BHD. PLO 8 & 9, JALAN TIMAH PASIR GUDANG INDUSTRIAL ESTATE 81700 PASIR GUDANG JOHOR	PASIR GUDANG	JOHOR
SSCC	SITI NUR AISYAH BINTI JALALUDDIN	SYNTHOMER SDN. BHD. 1 1/2 MILES JALAN BATU PAHAT 86000 KLUANG JOHOR	KLUANG	JOHOR
SSCA	SITI NURAINI BINTI MOHD SOKRI	AMR ENVIRONMENTAL SDN. BHD. 29 & 29A, JALAN PULAI PERDANA 11 TAMAN SRI PULAI PERDANA 81110 JOHOR BAHRU JOHOR	JOHOR BAHRU	JOHOR
SSCC	TENG CHIN CHAI	KAREX INDUSTRIES SDN. BHD. LOT 2244, BT. 39 1/5 PONTIAN BESAR 82000 PONTIAN JOHOR	PONTIAN	JOHOR
SSCC	VEL MURUGAN A/L NAGALINGGAM	ST MICROELECTRONICS SDN. BHD. TANJUNG AGAS INDUSTRIAL AREA P.O. BOX 28 84007 MUAR JOHOR	MUAR	JOHOR
SSCC	NOR SHAHIRAH BINTI ISMAIL	PETRONAS GAS BERHAD KM 105 JALAN KUANTAN-KUALA TERENGGANU 24300 KERTIH TERENGGANU	KERTIH	TERENGGANU
SSCA	NUR ATIKAH BINTI ABDUL KARIM	SYARIKAT AIR TERENGGANU SDN. BHD. LOJI AIR SATU HULU TERENGGANU JALAN SULTAN ISMAIL 20200 KUALA TERENGGANU TERENGGANU	KUALA TERENGGANU	TERENGGANI

LIST OF SSCA & SSCC STUDENTS

PROGRAM	NAME	ADDRESS OF COMPANY	DISTRICT	STATE
SSCC	RAY GEORGENY	JABATAN KIMIA MALAYSIA CAWANGAN SABAH ROSE GARDEN JALAN PENAMPANG 88300 KOTA KINABALU SABAH	KOTA KINABALU	SABAH
SSCA	NORSAHIRUTIARA BINTI MOHD. ASRUL	JABATAN KIMIA MALAYSIA CAWANGAN NEGERI SABAH ROSE GARDEN, JALAN PENAMPANG 88300 KOTA KINABALU SABAH	KOTA KINABALU	SABAH
SSCA	SITI ZURAINI BINTI ZAINOL	JABATAN KIMIA MALAYSIA CAWANGAN NEGERI SABAH ROSE GARDEN, JALAN PENAMPANG 88300 KOTA KINABALU SABAH	KOTA KINABALU	SABAH
SSCC	TAN JUN HAO	SARAWAK BIODIVERSITY CENTRE KM 20, JALAN BORNEO SEMENGOH LOCKED BAG NO. 3032 93990 KUCHING SARAWAK	KUCHING	SARAWAK
SSCA	AI CHIA PATRICK MELET	KING MONGKUT'S UNIVERSITY OF TECHNOLOGY THANBURI 126, PRASHA UTHIT RD BANGMOD THUNG KHURU 10140 BANGKOK THAILAND	BANGKOK	THAILAND
SSCA	TEO HWEE LI	KING MONGKUT'S UNIVERSITY OF TECHNOLOGY THANBURI 126, PRASHA UTHIT RD BANGMOD THUNG KHURU 10140 BANGKOK THAILAND	BANGKOK	THAILAND



ISBN 978-967-2171-60-7



9 789672 171607



MINISTRY
OF EDUCATION
MALAYSIA



UTM
UNIVERSITI TEKNOLOGI MALAYSIA