

# RÉSUMÉ

*Yoga Sugama Salim, PhD*

## EXECUTIVE SUMMARY

Graduated as an Industrial (Polymer) Chemist in Malaysia and France, I have had chance to embark in various fields over the last decade:

- Synthesis, processing and characterizations of polymers
- Biosynthesis of biodegradable polymers
- Failure investigation and other corrosion-related mitigations (paints applications & QA/QC, cathodic protection, thermal spray aluminum)
- Project management and business development

What I can offer is my skills & knowledge from 7 years of working experience, as well as to partake in a new journey for innovations and solve issues in your organization.

**Availability:** Immediate

**Eligibility to work in Malaysia:** Spouse visa

**Reason for leaving previous job:** Settle down with family in Malaysia

**Expected salary range:** MYR 8,000-12,000

## LANGUAGE PROFICIENCY

- English ●●●●●
- Malay ●●●●●
- Chinese ●●●●○
- Indonesian ●●●●○
- French ●●○○○

## MEMBERSHIP

Institute of Materials, Malaysia  
(O-056)

## CONTACT

MOBILE PHONE  
+6 010 704 0526

DETAILED ACTIVITIES:

<https://yogassalim.wixsite.com/ysalim>

EMAIL:

yoga.s.salim@gmail.com

## CORE SKILLS

- Plastic processing
- Characterizations & QA/QC
- Failure Investigation
- Project Management
- Bioplastic production

## WORK EXPERIENCE

### MATCOR Technology & Services Pte Ltd, Singapore [Freelance, Senior Engineer]

Nov 2020 – Dec 2020 (2 months), Mar2021 – Present

- Performed research along with the members of CETIM in France.
- Numerous projects are running concurrently; project 1: lifetime assessment of natural fiber composites and biopolymers; project 2: RFID assessment on CP potential survey; project 3: multi-recycling of carbon fiber reinforced composites

### Universiti Teknologi MARA, Malaysia [Freelance, Scientific Writer]

Jan 2020 – current

- Write and review scientific reports about the quality control of protective paint. This project was a continuation of “coating fingerprint” initiatives by the Institute of Materials, Malaysia (IMM), paint manufacturers, oil & gas owners and applicators.

### ENSICAEN, France [Postdoctoral Scientist]

Jun 2018 – Sept 2019 (1 year 3 months)

- Worked in a team of Researchers from Université de Rouen to reveal the relationship between the microstructure of poly(lactic acid) purportedly obtained from recycling/ageing process
- This project was funded to support French Regional Development
- Research outcome was presented in Sweden and France.

### Norimax Private Limited, Malaysia [Technical Manager]

Aug 2015 – May 2018 (2 years 10 months)

- Spearheaded new business area in failure investigation (of stainless steel and carbon steel) & other materials testing (concrete basin assessment) with more than RM 400,000 worth of total sales
- Solved the investigation of failed components (flanges, valves, pipes) from offshore (oil and gas) and onshore (drilling) in a team consisting of corrosion specialist and metallurgist.
- Key person to evaluate the infrared spectra of epoxies and hardeners from paint manufacturers (Jotun, Hempel, International Paint, Kansai, PPG, KCC). The project was in collaboration with Institute of Materials, Malaysia (IMM), laboratory service providers (Bruker, ThermoScientific, Perkin Elmer), and end users (Petronas, Shell) in order to solve the premature failure of coating that is supplied to the oil and gas industry
- Appointed as a trainer for IMM Coating Fingerprinting Certification
- Appointed as editorial member for Materials Mind magazine
- Appointed as industrial expert advisory panel in TAR University College (year of 2016-2018, 2018-2020, & 2020-2022)
- Co-mentored B.Sc. and M.Sc. students in their research projects related to Coating Fingerprinting of raw coating materials, intermediate products and final coating formulation
- Supported engineering team (cathodic protection, thermal spray coating, perfluorocarbon-coated bolts & nuts) nationwide

## REFEREES

1. Assoc. Prof. Eur.Ing. Nigel Brewitt  
Director, MTIS Private Limited  
+6012 202 5286
2. Dr. Andrew Spowage  
Director, MTIS Private Limited  
+6012 299 7420
3. Assoc. Prof. Dr. Antonella Esposito  
Université de Rouen  
+336 83 52 20 15
4. Prof. Dr. Chan Chin Han  
Universiti Teknologi MARA  
+6016 361 1760

- Supported Universiti Malaysia Pahang research activity related to the efficiency of sacrificial anodes
- Assisted in the IMM training (related to CP work function)

### University of Technology MARA, Malaysia [Research Assistant]

Mar 2011 – Feb 2014 (3 years)

- Co-mentored M.Sc. and Ph.D. students about the operation of scientific instruments (e.g. DSC, POM, TGA, FTIR, NMR)
- Co-mentored B.Sc. student in the formulation of methyl-grafted rubber
- Co-organized workshops and international conferences (ISAPM)

### University of Science Malaysia [Research Assistant]

Jan 2010 – Feb 2011 (1 year 1 month)

- Performed synthesis from small- to bench-scale (13 liter) bioreactor
- Was among the team members to implement the first pilot plant (100,000 liter) for PHA production in Malaysia
- Was among the reviewers for Malaysian Journal of Microbiology

### LKT Plastic Technology Private Limited, Malaysia [Industrial Trainee]

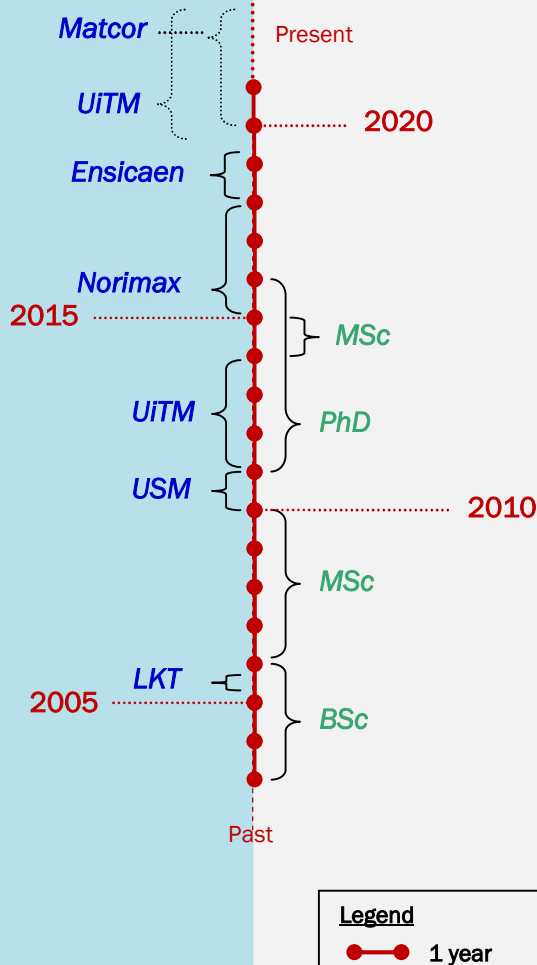
March 2005 – June 2005 (3 months)

- Developed the knowledge of QA/QC for injection-molded engineering plastics for automotive industry
- Created and compiled a database of engineering plastics

## TIMELINE

### Work Experience

### Education



## EDUCATION

### University of Malaya, Malaysia [Ph.D. Polymer Chemistry]

Sept 2011 – Oct 2016

Revealed the kinetics of isothermal crystallization and melt reaction between poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) and epoxidized natural rubber

Award: Recipient of research funding of approx. RM 110,000

### Université de Rouen, France [M.Sc. Materials Engineering]

Jul 2014 – Jul 2015

Developed the knowledge & skills in advanced materials characterization

Award: Carl Klason student (presentation) award (2015), Nebraska, USA

### University of Science Malaysia [M.Sc. Industrial Chemistry]

Sept 2006 – Aug 2010

Investigated the (bulk) thermal and mechanical property of poly(3-hydroxybutyrate-co-3-hydroxyvalerate)-blend-empty fruit bunch fibers

Award: Sanggar Sanjung (publication) award (2010), Penang, Malaysia

### University of Science Malaysia [B.Sc. (Hons.) Industrial Chemistry]

Jun 2003 – Jun 2006

GPA: 2.75 out of 4

Minor: Management/Accounting/Organization Behavior

## Past (Industry) training

- ✓ OGSP (valid through 4 Jan 2020)
- ✓ AESP for Confined Space (valid through 30 Dec 2019)
- ✓ IMM Blasting/Painting Supervisor
- ✓ IMM Certified Coatings Fingerprint Quality Controller

## Hands-on skills

- ✓ Gas Chromatography
- ✓ Gel Permeation Chromatography
- ✓ High Performance Liquid Chromatography
- ✓ Fourier Transform InfraRed Spectroscopy
- ✓ Ark-Spark Spectrophotometer
- ✓ Nuclear Magnetic Resonance
- ✓ Viscosimeter
- ✓ Differential Scanning Calorimeter
- ✓ Thermogravimeter
- ✓ Dynamic Mechanical Analyzer
- ✓ Rheometer
- ✓ Tensile tester
- ✓ Impact tester
- ✓ Hardness tester
- ✓ Extrusion machine
- ✓ Haake™ mixer
- ✓ Hot-press machine
- ✓ Rheometer
- ✓ Tensile tester
- ✓ Impact tester
- ✓ Hardness tester
- ✓ Extrusion machine
- ✓ Haake™ mixer
- ✓ Hot-press machine
- ✓ Microbial growth (shake-flasks and fermentor up to 100 liter)
- ✓ Sample preparation (sample cutting, polishing and etching)
- ✓ Imaging tools (a series of microscopes from optical-, fluorescence-, polarized- and electron-)
- ✓ Cathodic Protection potential survey
- ✓ Thermal Spray Coating quality control
- ✓ Paint quality control
- ✓ Failure Investigation

## SELECTED PUBLICATIONS

### **Materials Mind [2018] Issue 21, Page 11**

Failure investigation from Chemist's point of view

YS Salim

### **Corrosion Engineering Science and Technology [2018] Volume 53, Issue 7, Page 468-476**

Physical and structural analyses for batch-to-batch consistency of epoxy paints: A case study on epoxy coatings for oil and gas industry in Malaysia

YS Salim, CH Chan, CH Ong

### **RSC Advances [2017] Volume 7, Issue 1, Page 112-120**

Degradation of ultra-high molecular weight poly(methyl methacrylate-co-butyl acrylate-co-acrylic acid) under ultra violet irradiation

R Shanti, AN Hadi, YS Salim, SY Chee, S Ramesh, K Ramesh

### **Macromolecular Symposia [2017] Volume 371, Issue 1, Page 107-113**

Studies on non-isothermal crystallisation and viscoelastic properties of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) and epoxidized natural rubber blends

FMM Akram, CH Chan, YS Salim, SN Gan, K Sudesh

### **Macromolecular Symposia [2016] Volume 365, Issue 1, Page 81-86**

Evidence of melt reaction between poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) and epoxidized natural rubber as investigated by DSC, isothermal TGA and FTIR analyses

YS Salim, JM Saiter, VD Natarajan, K Sudesh, SN Gan, CH Chan

### **Materials and Design [2016] Volume 108, Page 560-569**

Poly(methyl methacrylate-co-butyl acrylate-co-acrylic acid): Physico-chemical characterization and targeted dye sensitized solar cell application

R Shanti, F Bella, YS Salim, SY Chee, S Ramesh, K Ramesh

### **AIP Conference Proceedings [2015] Volume 1674, Issue 1, Page 020033**

Polymer blends made of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) and epoxidized natural rubber: Thermal and mechanical response

YS Salim, CH Chan, HW Kammer, K Sudesh, SN Gan