CURRICULUM VITAE: ASSOC. PROF. DR. MUSTAFAR BIN SUDIN

JAN 2013

MUSTAFAR BIN SUDIN NAME:

I<u>.C. NO</u>.: 520303-05-5519

PERSONAL DETAILS: Age: 60

> Nationality: Malaysian Citizenship: Malaysia

Status: Married, four (4) children.

41 Jalan Budiman 3 HOME ADDRESS:

> Taman Mulia Bandar Tun Razak 56000 Cheras Kuala Lumpur

TEL. NO. 03-91734243 (Home)

017 - 2418400 (h/p)

EDUCATION:

January 1965 – December 1967 S.M.K, Batu Kikir, N.S

January 1968 – December 1970 Sekolah Menengah Teknik K.L

June 1971 – April 1974 Univesiti Teknologi Malaysia UTM, K.L.

September 1974 – July 1978 Sunderland Polytechnic, U.K.

September 1985 – July 1987 Cranfield Institute of Technology, U.K.

January 1992 – July 1996 The University of Hull, U.K.

QUALIFICATIONS:

1974 Diploma Kejuruteraan Jentera, Kelas II, UTM.

B.Sc. Mechanical Engineering (CNAA) 1978

(Sunderland Polytechnic: three-year course)

M.Sc. Metallurgical Engineering 1988

> (Cranfield Institute of Technology: two year course consisting of coursework and thesis, Coating as In-Situ Envelopes For Hot Isostatic Pressing), 127pp. Supervisor: Dr. J.R Nicholl (now Professor) and Dr.

D.J Stephenson.

1996 Ph.D. Engineering Design and Manufacture (Hull

University):

<u>Studies Into Duplex Electrolerss Nickel-PAPVD</u>
<u>Coatings for Wear and Corrosion Resistance,</u>
254pp. Supervisor: Professor Allan Matthews.

<u>LANGUAGES</u> Bahasa Malaysia (fluent in speaking and writing)

English (fluent in speaking and writing)

Japanese (basic in speaking)

EMPLOYMENT:

Machinery Assistance at Machinery Department,

Ministry of Labour, Malaysia.

1978 – 1996 Research Officer, Senior Researcher and Principal

Researcher

at Standard and Industrial Research Institute of

Malaysia (SIRIM)

1996 - 1999 Senior Lecturer at Department of Aerospace

Engineering, Faculty of Engineering, UPM.

1999 – 2012 Lecturer L2, Associate Professor at Mechanical

Engineering Department Universiti Teknologi

PETRONAS (UTP).

2012 - 2013 Principal Lecturer 1 at Department of Engineering,

School of Engineering Science and Technology,

Nilai University, NU.

2013 - Associate Professor, at Department of Engineering,

School of Engineering Science and Technology,

Nilai University, NU.

ADMINISTRATION:

SIRIM (1978 – 1996)

1980 : Head of Electroplating Unit.

Metal Industry Technology Centre (MITEC), SIRIM.

1983-85 : Acting Head

MITEC, SIRIM.

UPM (1996 – 1999)

1996 - 1999 : Head of Material and Structure Unit

Department of Aerospace Engineering

Faculty of Engineering

UPM

1996 - 1999 : Undergraduate Student Academic Advisor. 1996 - 1999 : Undergraduate Industrial Practical Training Coordinator. 1996 - 1999 : UPM Franchise Program Coordinator for Aerospace Engineering. 1998 - 1999 : ISO 9000 Committee Member for the Faculty of Engineering. 1998 - 1999 : Member of Alumni and Student Affair Committee for the faculty. 1999 - 1999 : Committee member of Student Academic Performance, faculty. UTP (1999 - 2012)2000 -: ISO 9000 Steering Committee for Academic UTP. : Academic Timetable Committee Member. 2000 -2000 - 2001 : Engineering Team Project (ETP) Committee and Coordinator. : Public Lecture Series Vice Chairman. 2000 -2000 -: Final Year Project Committee Member for Mechanical Eng. 2000 -: Post Graduate Committee Member for Mechanical Eng. 2000 - 2001 : Lembaga Akridikasi Negara (LAN) Coordinator for Mech. Eng. : Member of Working Committee on Application for 2000 - 2001 Accreditation of UTP B. Eng. Courses from Board of Engineers Malaysia. 2002 - 2003: M.E. Departmental Representative to Research Development Committee at Research Enterprise Office. 2007 : M.E Department ETP Coordinator. 2004 - 2007: Project Leader, IRPA.Development of LRT Brake Pad Material.

TEACHING:

1996 – 1999 Undergraduate Course (UPM)

Engineering Mathematics I, 3 hours/week (First Year Semester 1)
Elasticity, 3 hours/week (First Year Semester 1)
Aerospace Material, 3 hours/week (First Year Semester 1)
Engineering Mathematics II, 3 hours/week (First Year Semester 2)
Aircraft Structure, 2 hours/week (First Year Semester 2)
Engineering Mathematics III, 3 hours/week (Second Year Semester 2)

M.Sc Course (UPM)

Engineering Material and Characteristic, 3 hours/week.

1999 - 2012 <u>Undergraduate Course (UTP)</u>

Introduction to Material Science, 3 hours/week

Thermofluid laboratory Engineering Team Project

Mechanics of Material, 3 hours/week

Engineering Material Technology, 2 hours/week

Tribology, 3 hours/week.

Mechanical Metallurgy, 3 hours/week. Engineering Materials, 3 hours/week.

Manufacturing Technology II, 3 hours/week. Manufacturing Technology, 2 hours/week. Corrosion Engineering, 3 hours/week.

Failure Analysis and Non Destructive Examination, 3 hour/weeks.

2009- 2012 <u>Postgraduate Taught Course (UTP)</u>

Failure Analysis and Risk-based Inspection, EMM 5073, 3 crd/hrs

2012 – Now <u>Diploma and Degree (Nilai University)</u>

Fluid Mechanics 1, EE 2153, 4 hours/week. Fluid Mechanics 2, EE 2253, 4 hours/week.

Engineering Fluid Mechanics, EE 3279, and 4 hours/week.

Material Science, EE3170, 4 hours/week. Stress Analysis 1, EE 3277, 4 hours/week.

PROFESSIONAL ACTIVITIES:

Refereeing Work: Reviewer for Journal of Engineering, UKM.

Reviewer for Journal of Engineering Science and

Technology (JESTEC). Taylor's University College.

Paper Reviewer for International Conference on Plant

Equipment and Reliability, ICPER 2008.

Paper Review for 2nd International Conference on Plant

Equipment and Reliability, ICPER 2010.

Short Courses (organizing): Organizing and lecturing on Metal Finishing Course for

local entrepreneur.

Organizing and lecturing on Metal Working Course for

Asian Pacific Training Program.

Short Course (Attending): Theory and Analysis of Laminated Composite Plate

(TLCP). 21st June 1997, UPM.

Failure Analysis of Engineering Materials, UPM 11th -13th

May 1998.

Metallurgical Failure Analysis and Prevention. 2nd – 4th

August, 2010. Crown Plaza Mutiara Kuala Lumpur.

Fatigue Theory for Engineers. 12th – 13th January 2004. National CAD/CAM Training Centre, Sirim Berhard, Shah

Alam.

Outcome Based Education Training. Nilai University. Speaker: Prof. Dr. Ir. Ramesh, Universitry Malaya,

Monday 25th November 2013

Seminar: Organizing an Aeroforum 97', November 13 – 14, 1997,

UPM.

Colloquium: Organizing the 3rd Malaysian Brake Friction Materials

Colloquium 2006 (MBFMC), $23^{rd} - 24^{th}$ Febuary 2006.

The Orient Star Resort, Lumut Preak.

Professional Bodies: Member of Institute of Materials, Malaysia (IMM)

(Membership No. 1453).

Malaysian Tribology Society (MYTRIBOS) (Life Member No. L0409), Treasurer, Northern Region Representative. Vice President 2, Malaysian Tribology Society (MYTRIBOS) (Incorporated in 2007) (Registration No.

1193-08-WKL) 2010/2011. www.mytribos.org

Committee Member (2011/2013).

Sabbatical Leave: Universiti Kuala Lumpur, UniKL. MFI Bangi, Selangor

D.E. July 2008 – December 2008.

RESEARCH SUPERVISION/EXAMINER:

M.Sc Students: Examiner for Elsadiq Mahdi Ahmed Saad (UPM, 1997),

Examiner for Abdul Halim Abdul Manaf (UPM, 1998)

Examiner for Sugeng Ariyono (UTM, 2000) Supervisor for Mahbob Shahril (UTP, 2000 - 2003) Co-Supervisor for Haw Min Git (UM, graduated 2005)) Examiner for Nizamil Fairuz bin Yahya (UTM, 2001)

Supervisor for A. Munir H. Lubis (UTP, graduated 2008)

Co-Supervisor for Budi Agung Kurniawan (UTP, graduated 2009)

Examiner for Sabrudin Mohamad Suren, (UiTM, 2009) Supervisor for Affiani Mahmudah (UTP, 2009 – 2011)

Supervisor for Nor Nurulhuda Binti Md. Ibrahim (UTP, graduated

2012.)

Examiner for Nor Izan Izura Binti Mansur (UKM, 2011) Supervisor for Nurul Nadia Mohamad Sabri (UTP, 2011 – 2012)

Examiner for Yusliza Binti Yusuf (UTEM, 2011)

Ph.D. Students: Co-Supervisor for Asad Abdullah Khalid (UPM, graduated 1999)

(The first Ph.D. from Mech. Eng. Department.) Supervisor for Widarta (UTP 2009 – 2012)

Supervisor for A. Munir H Lubis (UTP, graduated 2013) **Examiner for Kumaran A/L Kadirgama (UNiTEN 2009)** Supervisor for Mohd Fauzi Bin Abd Karim (UTP 2011 – 2012)

Brake Pad Material (Project Number: 03-99-02-0040-PR0066/04-

RESEARCH CONTRACT & GRANTS:

1990 – 1992	IRPA grant RM75, 000.00, Electroless Nickel-Plating.
1991 – 1992	IRPA grant RM 90,000.00, Thin Film Hard Coating.
1998 – 1999	IRPA grant RM 302,000.00, Fatigue life enhancement of special aerospace alloys by overloading (Project Number: 03-02-04-0089).
2003 – 2007	IRPA grant RM 845,000.00, Determination of Friction and Wear of Break Pads For LRT Transit Application: Development of LRT

04).

2009 – 2010 STIFF No. 38/09.10, UTP internal grant RM 19,916.00. Development of Lubricant Base Stock Oil from Jatropha Curcass L.

2011 – 2012 URIF No. 23/2011, UTP internal grant RM 45,900.00. Development of Transmission Lubricant from Jatropha Oil.

INDUSTRIAL EXPERIENCE:

April 5, 1979 to March 31, 1980. One year Group and Individual Training at

Japanese industries in Japan (JICA).

April 13, to September 22, 1983. Six months on-the-job technical training in

R.O.Korea (LOOK EAST POLICY, JPM).

AWARD

- 1. The Best Award, Gold Medal, Malaysian Technology Expo 2008, Malaysian Association of Research Scientists for the invention/innovation of: *Asbestos-Free Friction Materials for Heavy-Duty Brake Application*.
- 2. Bonze Medal, EDX 21st Competition, April 2008, ETP Supervisor on *Asam Gelugor Slice Machine*.
- 3. Silver Medal, EDX 23rd Competition, April 2009, ETP Supervisor for *Secondary Fan Generator*.
- 4. Gold Medal, EDX 25th Competition, April 2010, FYP Supervisor for *The Investigation Into the Effect of Viscosity on Friction and Wear Behavior of Automotive Gear Oils*.

CONFERENCES AND SEMINARS ATTENDED AND/OR PRESENTED:

- 1. International Conference on Metallurgical Coatings and Thin Films, Town and Country Hotel, San Diego, California, April, 25-29, 1994.
- 2. Word Engineering Congress 1999, Sheraton Subang Hotel and Towers, Kuala Lumpur, July 19-22, 1999.
- 3. 1st Malaysian Brake Friction Material Colloquium. AMREC/SIRIM BHD. Kulim High Tech Park. Kedah. 1st and 2nd March 2004.

- 4. 2nd. Malaysia Brake Friction Material Colloquium. INTEKMA Resort & Convention Centre UiTM Shah Alam Selangor.D.E. 3rd –4th December 2004.
- 5. 3rd Malaysian Brake Friction Materials Colloquium, Lumut, Perak D.R, 23rd 24th Febuary 2006.
- 6. 4th Malaysian Friction Materials Colloquium 2006. 20th 21st November 2006. Bayview Hotel, Langkawi, Kedah.
- 7. 5th Malysian Friction Materials Colloquium 2007. 6th 7th June 2007. Bukit Merah Laketown Resort, Perak, Malaysia.
- 8. Intellectual Property Seminar. $14^{th} 15^{th}$ January 2008. Universiti Teknologi Petronas, UTP.
- 9. International Conference on Plant Equipment and Reliability. ICPER 2008. 27th 28th March 2008. Sunway Pyramid Convention Centre, Selangor. D.E.
- 10. National Tribology Conference 2009. 4-5 May 2009, Rimba Ilmu, University of Malaya.
- 11. Regional Tribology Conference, RTC 2011. Bayview Hotel. Langkawi Island, 22nd 24th November 2011.
- 12. Workshop on the National Policy on Science, Technology & Innovation (NPSTI) 2013 2020. Ministry of Science, Technology & Innovation (MOSTI). Putrajaya (PICC), 8&9 July 2013.

PUBLICATIONS:

A. BOOKS.

- 1. **Brake Friction Materials**, Editor: Darious G. Solomon, ISBN 983-3644-72, University Publication Centre, UiTM, (UPENA), 2006. Contributed two (2) Chapters.
- 2. **Brake Pad & Disc Materials,** Editors: Darius G. Solomon, Mohamad Nor Berhan, Mohamad, Soib Selamat, Talib Ria Jaafar, **Mustafar Sudin**, ISBN 978-967-305-009-3, ISBN 978-983-3644-91-9 (pbk), University Publication Centre (UPENA), UiTM 2007. Contributed four (4) Chapters.

B. PATENTS

- Malaysian Patent: Pending Patent No. PI 20072206, Filing date 10/12/07. A
 Method for Producing Non-Asbestos Brake Friction Material. Dr. Talip Ria
 Jaafar, Dr. Mohd Asri Selamat, Mohammad Soib Selamat, Ramlan Kasiran,
 Aliasidi Abu Othman, Prof. Ir. Dr. Mohamad Nor Berhan, Prof. Madya Dr.
 Mustafar Bin Sudin.
- 2. Malaysian Patent: Pending Patent No. **PI 20072207, Filing date 10/12/07**. Non-Asbestos Brake Friction Materials. Dr. Mohd Asri Selamat, Mohamad Soib

Selamat, Dr. Talib Ria Jaafar, Yusli Mohamad Yunus, Mohamad Izha Ishak, Prof. Ir. Dr. Mohamad Nor Berhan, **Prof. Madya Dr. Mustafar Sudin.**

C. PAPERS.

- 1. A. LEYLAND, **M. BIN-SUDIN**, A. S. JAMES, M. R. KALANTARY, P. B. WELL, A. MATTHEWS, J. HOUSDEN and B. GARSIDE., "*TiN and CrN PVD coatings on electroless nickel-coated steel substrates*", Surf. and Coat. Technol., 60(1993) 474-479.
- 2. A. MATTHEWS, A. LEYLAND, B. DORN, P. R. STEVENSON, **M. BIN-SUDIN**, C. REBHOLZ, A. VOEVODEN and J. SCHNEIDER, "*Plasma-Base Surface Engineering Process for Wear and Corrosion Protection*", J. Vac. Science Technol. A 13/3, (1995) 1202-1206.
- 3. **M. BIN-SUDIN**, A.LEYLAND, A. S. JAMES, A. MATTHEWS, J. HOUSDEN and B. GARSIDE., "Substrate surface effects in duplex coatings of PAPVD and CrN with electroless nickel-phosphorus interlayers", Surf. and Coat. Technol., 81(1996) 215-224.
- 4. **M. BIN-SUDIN**, A. MATTHEWS and P. R. ARORA., "The Wear Characteristics of Duplex Coating of PAPVD TiN and CrN: An Analysis of Thickness Effect", Proceedings International Conference on Structure, Processing and Properties of Materials, SPPM'97, Dhaka, 15–17 November, D1-D10, 1997.
- 5. **M. BIN-SUDIN** and P. R. ARORA., "*Tribological behaviour of duplex coatings PAPVD TiN and CrN on mild steel substrate*", Proceedings World Engineering Congress, Aerospace Engineering, Kuala Lumpur,71 76, ISBN 967-960-084-x, July 19-22, 1999.
- 6. **M. BIN-SUDIN**, K. A. ZAINAL ABIDIN, Z. MAN, M. FAIZAIRI MOHD NOR, A-RASHID A-AZIZ and FADZIL M. H., AHMAD., "Engineering Team Project (ETP) as an inter-disciplinary subject for undergraduate students.", International Conference on Engineering Education, ICEE 2000, Taipei, Taiwan, ROC, August 14–16, 2000.
- 7. **M. BIN SUDIN**, "Preliminary Wear Study: LRT Brake Pad.", 1st Malaysian Friction Materials Colloquium 2004, 1st 2nd March 2004, AMREC/SIRIM, Kulim Hi Tech. Park
- 8. **M. Bin Sudin**, H. F. Nati and Norhazlina B. N., "Friction and Wear Studies on PUTRA LRT Brake Material Via Trobometer Pin-On-Disk, XRF and XRD Test Techniques". 2nd Malaysian Brake Friction Materials Colloquium 2004, 3rd 4th

- December 2004, INTEKMA Resort & Convention Centre, UiTM Shah Alam , Selangor D.E.
- 9. **M. Bin-Sudin**, A. Munir H. L, H. F. Nati and A. S. Shaari., "Wear Analysis On Variuos New Formulated Brake Pad Material Using Taber Wear Abraser.". 3rd Malaysian Brake Friction Materials Colloquium 2006. 23rd –24th February 2006, Lumut, Perak. D. R.
- 10. M. G. How, M. Hamdi and M. Bin-Sudin. "The Effect of Substrate Surface Roughness on Properties of Diamond-Like Carbon Coating.". 1st International Conference & 7th AUN/SEED-Net Fieldwise Seminar On Manufacturing And Material Processing. 14 – 15 March 2006 Kuala Lumpur, Malaysia.
- 11. F. Ahmad, O. Mamat, **M. Bin Sudin** and K. Fuad. "Challenges in Development of Powder Injection Molded Metal Composites." Malasian P/M Syposium, Aug 29-30 2006. Shah Alam, Selangor D.E. Malaysia.
- 12. **M.Bin-Sudin**, Faiz Ahmad, H. F. Nati, A. S. Shaari. "Investigation into Impact Property for New LRT Brake Pad Material Formulation Using Izod and Charpy Test Evaluation." 4th Malaysian Friction Materials Colloquium 2006. 20th 21st November 2006. Bayview Hotel, Langkawi, Kedah.
- 13. Faiz Ahmad, **M. Bin-Sudin**, A. S. Shaari, F. H. Nati. "A study of Hardness of Brake Pad Formulation". 4th Malaysian Friction Materials Colloquium 2006. 20th 21th November 2006. Bayview Hotel Langkawi, Kedah.
- 14. A. S. Shaari, **M. Bin-Sudin**, Faiz Ahmad, H. F. Nati. "Selection of Suitable Light Rail Transit (LRT) Brake Pad Formulations Using Quality Function Deployment (QFD)." 4th Malaysian Friction Materials Colloquium 2006. 20th 21st November 2006. Bayview Hotel, Langkawi, Kedah.
- 15. Abdul Munir Hidayat Syah Lubis, N. Bt. Piyasek, **M. Bin-Sudin**, Faiz Ahmad. "Effect of Temperature on Hardness, Impact Properties and Wear Chracteristic to Light Rail Transit (LRT) Brake Pad Composite Material." 4th Malaysian Friction Materials Colloquium 2006. 20th 21st November 2006. Bayview Hotel, Langkawi, Kedah.
- 16. F. Ahmad, **M. Bin-Sudin**, O. Mamat and N. Amir. "Sintering Short-Carbon Fiber Reinforced Copper Matrix Composites for Thermal Management Application." ASAT-Conf. May 29-31, 2007, Cairo, Egypt.
- 17. **M. Bin-Sudin**, A. S. Shaari, H. F. Nati, Faiz Ahmad. "Friction and Wear Assessment for Selection of Suitable Light Rail Transit (LRT) Brake Pad Formulations Using Quality Function Deployment (QFD)." 5th Malaysian Friction Materials Colloquium 2007. 6th 7th June 2007. Bukit Merah Laketown Resort, Perak, Malaysia.
- 18. Abdul Munir Hidayat Syah Lubis, **M. Bin-Sudin**, F. Ahmad. "Effect of Speed and Relative Humidity on Friction and Wear of Brake Pad Material." 5th Malaysian Friction Materials Colloquium 2007. 6th 7th June 2007. Bukit Merah Laketown Resort, Perak, Malaysia.
- 19. F. Ahmad, **M. Bin-Sudin**. "Tribological Study Using Multi Specimen Wear Test on LRT Brake Pad." 5th Malaysian Friction Materials Colloquium 2007. 6th 7th June 2007. Bukit Merah Laketown Resort, Perak Malaysia.
- 20. Faiz Ahmad, P. S. M. Megat-Yusuff, M. Majdi B. A. Rani, **M. Bin-Sudin** and N. Amir. "Injection Molded Short-Carbon Fibre Reinforced Silicon Matrix

- Composites." Curtin Serawak Conference CUTSE, 26th -27th November 2007. Serawak.
- 21. N. Amir, **M. Bin Sudin**, F. Ahmad. "Adhesion Properties of Metallic Coatings on Mild Steel Substrates." International Conference on Plant Equipment and Reliability, ICPER 2008, 27th 28th March 2008. Sunway Pyramid Convention Centre, Selangor D. E. Malaysia.
- 22. **M. Bin Sudin**, F. Ahmad, A. M. H. Lubis. "Tribological Studies of Semi Metallic Composite Material Under Controlled Environment." International Conference on Plant Equipment and Reliability, ICPER 2008. 27th 28th March 2008. Sunway Pyramid Convention Centre, Selangor D. E. Malaysia.
- 23. Abdul Munir Hidayat Syah Lubis, **M. Bin Sudin**. "Investigation of Worn Surface of Semi Metallic Composite Material Using Scanning Electron Microscope (SEM)". National Post Graduate Conference. 30th March 2008. Universiti Teknologi Petronas, UTP. Perak D.R. Malaysia.
- 24. M. Farooq, A. Ramli, **M. Bin Sudin** and M. Nawshad. "Effect of 12-hydroxystearic Acid on The Tribological Properties of Environmentaly Friendly Lubricants". National Tribology Conference 2009, 4-5 May 2009. Rimba Ilmu University of Malaya. Malaysia.
- 25. A. Triwiyanto, S. Mridha, E. Haruman, **M. Bin Sudin**. "Thermomechanical Treatments of Austenitic Stainless Steel in Fluidized Bed Furnance for Improved Mechanical Properties." International Journal of Mechanical and Materials Engineering (ISSSN 1823-0034) Indexed by Scopus Volume 4 No 2-2009. Electronic Journal of University of Malaya.
- 26. A. M. H.S. Lubis, **M. B. Sudin** and B. Ariwahjoedi. "Investigation of Worn Surface Characteristics of Steel Influenced by Jatropha Oil as Lubricant and Eco-friendly Lunbricant Substituent." Journal of Applied Sciences, 2011. ISSN 1812-5654 / DOI: 10.3923/jas.2011. Vol. 11 No. 10. Pp 1797 1802, 2011.
- 27. Windarta, **M. Bin Sudin** and Khairul Fuad. "Influence of Applied Load on Wear Chracterization of Rail Material." Journal of Applied Sciences, 2011. ISSN 1812-5654 / DOI 10.3923/jas.2011. 11 (9): 1636-1641, 2011. Vol. 11, No. 9. Pp1636 1641, 2011.
- 28. A. Triwiyanto, **M. Bin Sudin**, E. Haruman, S. Mridha and P. Hussain. "Structural and Properties Development of Expanded Austenite Layers on AISI 316L after Low Temperature Thermomechanical Treatment." Journal of Applied Sciences, 2011. ISSN 1812-5654 / DOI: 10.3923/jas.2011. Vol.11, No. 9, pp 1536 1543, 2011.
- 29. **M. Bin Sudin**, Wndarta. "Study on Tribology Properties of Rail Track Material Using Tribometer." 4th Malaysia Powder Metallurgy Symposium & Malaysia Metallurgical Conference 2010 (MMC2010) 22-23 November 2010, Park Royal Hotel, Penang.
- 30. Nor Nurulhuda, **M. Bin Sudin** and Mohd. Faizari, "Investigation on the Effect of Crude Palm Oil (CPO) on the Cutting Forces, Tool Wear and Surface Roughness in Turning SS304." National Postgraduate Conference, Universiti Teknologi PETRONAS, 19th 20th September 2011. IEEE Index.
- 31. Windarta and **M. Bin Sudin**. "Pressure Distribution Investigation on Interaction between Rail-Wheel." National Postgraduate Conference, Universiti Teknologi PETRONAS, 19th 20th September 2011. IEEE Index.

- 32. Windarta and **M. Bin Sudin**. "Analytical Study on Wear Interaction between Rail-Wheel." International Conference on Mechanical and Aerospace Engineering (ICMAE 2011). July 29-31, 2011, FIRST HOTEL BANGKOK, THAILAND.
- 33. Abdul Munir Hidayat Syah Lubis, **M. Bin Sudin** and Bambang Ariwahjoedi. "Wear Preventive Chracteristics of Esterifies Jatropha Oil." National Postgraduate Conference. Universiti Teknologi PETRONAS, 19th 20th September 2011. IEEE Index.
- 34. Windarta and **M. Bin Sudin.** "Analytical Study on Wear Interaction between Rail-Wheel." Journal Applied Mechanics and Materials, Volume 110-116 (2012), pp 2406-2410. ISBN-13: 978-3-03785-262-0.
- 35. A.M.H.S. Lubis, **M. Bin Sudin**, B. Ariwahjoedi, K. A. Kurnia. "Friction and Wear Performance of Esterified Jatropha Oil as Lubrication Additives." Regional Tribology Conference, RTC 2011. Bayview Hotel, Langkawi Island, 22 -24 November 2011.
- 36. Windarta and **M. Bin Sudin**. "Application of Pin-on-disc Method for Wear Rate Prediction on Interaction Between Rail and Wheel." Regional Tribology Conference, RTC 2011. Bayview Hotel, Langkawi Island, 22 24 November 2011.
- 37. N.N. Md. Ibrahim, **M. Bin Sudin**, F. Mohd Nor. "Investigation on the Effect of Crude Palm Oil (CPO) on the Surface Roughness and Tool Wear in Turning SS304." Regional Tribology Conference, RTC 2011, Bayview Hotel, Langkawi Island. 22 24 November 2011.
- 38. **M. Bin Sudin**, Windarta. "Wear Properties Investigation of Rail and Wheel Material Using Pin- on- Disk Method." Regional Tribology Conference, RTC 2011, Bayview Hotel. Langkawi Island. 22- 24 November 2011.
- 39. Windarta, **M. Bin Sudin.** "Contact Temperature Prediction on Interaction between Rail and Wheel." ICPER 2012 (submitted and accepted).
- 40. A.M.H.S. Lubis, **M. Bin Sudin**. "Four Ball Study of TCP Effect to Jatropha Oil as Transmission Oil." ICPER 2012 (submitted and accepted).
- 41. Abdul Munir Hidayat Syah Lubis, **Mustafar Sudin**, Bambang Ariwahjoedi. "Four-Ball Study of Tricresyl Phosphate Effect to Jatropha Oil for Transmission Oil Application." Accepted for Journal Of Apply Science, August 2012.
- 42. Abdul Munir Hidayat Syah Lubis, Bambang Ariwahjoedi, **Mustafar Sudin**, "*Thermo Oxidation Degradation Study of Jatropha Oil with Antioxdant.*". ICAME 2013, 31st January 2013.
- 43. Abdul Munir Hidayat Syah, Bambang Ariwahjoedi, **Mustafar Sudin**, Setyamartana Parman. "Thermo oxidative Degradation Behavior of Jatropha Curcass L. Oil in the Presence of Antioxidant." Applied Mechanics and Materials Vol.393(2013) pp 893-898 © (2013) Trans Tech Publications, Switzerland doi:10.4028/www.scientific.net/AMM.393.893