

Professor Dr.-Ing.Nik Abdullah Nik Mohamed



born in 1953 in Tanah Merah, Kelantan

30 years of teaching and research since 1983 with Tech University Berlin, and Universiti Kebangsaan Malaysia (UKM).

Present Appointment:

Professor in Mechanical Engineering, Dept. of Mechanical and Materials Engg, UKM since Dec 2006.
Deputy Director. Institute of Space Science, UKM since 2009

Working Experiences:

- Deputy Director - Institute of Space Science, UKM since 2009
- Senior Research Fellow – Institute of Space Science, UKM since 2005
- Professor VK7: Department of Mechanical and Materials Engineering, UKM since 2006
- Associate Professor: Department of Mechanical and Materials Engineering, UKM, 1995 - 2006
- Lecturer. Department of Mechanical and Materials Engineering, UKM, 1992 - 1995
- Lecturer: Department of Mechanical Engineering, Technische Fachhochschule Berlin, Jerman, 1991
- Research Fellow (Wissenschaftlicher Mitarbeiter): Institut fuer Mechanik, Technische Universitaet Berlin, Germany, 1985 - 1990
- Tutor: Institut fuer Mechanik, Technische Universitaet Berlin, Germany, 1983 - 1984.
- Assistant Lecturer:: Language Center, Institut Teknologi Mara, Shah Alam, 1980.
- Research Officer: Manufacturing Dept., SIRIM, Shah Alam, 1979 - 1980.

EDUCATION:

Ing. Grad (B.E)	Mechanical Engineering	University of Applied Science Munich	1979
Diplom Ingenieur MSc(Eng)	Mechanical Engineering	Tech Univ Berlin	1983
Dr.-Ing (PhD)	Mechanical Engineering	Tech Univ Berlin	1991

PROFESSIONAL AFFILIATION:

Member : International Society of Optical Engineering (SPIE), USA

RESEARCH AREA:

Continuum Mechanics and Material Theory: *Smart Materials, Auxetic Shape Memory Alloy Cellular Honeycomb and Bulk Metallic Glasses.*

Noise and Vibration: *Vibration based Maintenance and Reliability Engineering*

Engineering Education: *Credit Transfer System and Student Mobility.*

Member, Editorial Board:

- (1) Bulletin of the Institution of Engineers Malaysia (1992-1995);
- (2) Proceeding for Computational and Experimental Mechanics (CEM) of EM3ARC Conference 2007. UKM

Awards:

1. Scholarship of the Carl Duisberg Gesellschaft. 1973-1979
2. Japan Society for Promotion of Science, Kyoto University, 1995/1996.
3. German Academic Exchange Service, DAAD, 2000/2001 as Visiting Researcher at the Technische Universitaet Berlin, Germany.
4. Bronze Medal from the Organizing Committee "the 29th. International Exposition for Invention and New Products, Geneva 2001" for the invention Anti-fire Locking System with Smart Material based Actuation.

Teaching Activities:

Technische Universitaet Berlin (1985 -1990)*

Mechanik I, II & III (Vordiplom)
Kontinuumsmechanik (Dipl.-Ing.)
Tensoranalysis (Dipl.-Ing)
Elektrodynamik (Dipl.-Ing)

Universitaet Duisburg-Essen (2004/2005)

Islam and Engineering (Bachelor)
Reliability Engineering (Master)

Universiti Kebangsaan Malaysia (1992 –present)

Mechanical Vibration (B.Sc)
Fluid mechanics (B.Sc)
Control Engineering (B.Sc)
Modeling and Simulation of System Dynamics (B.Sc)
Mathematical Methods in Engineering Research (M.Sc)
Smart Materials (M.Sc)
Nanomechanics and Nanomaterials (M.Sc)
Reliability Engineering (Master)

* the lectures were given in german language

PhD and M.Sc Supervisionship

Ongoing: 7 PhD students.
Completed: 3 PhD students, 15 Masters students

PhD and M.Sc External Examiner:

Universiti Putra Malaysi Master students, from 2006 to 2013, 2 PhD students, 2009, 2010) ,
Universiti Tun Hussein Onn Malaysia (1 Master student, 2010),
Universiti Sains Malaysia (1 PhD student, 2011) and
Universiti Teknologi Malaysia (1 PhD, 2013).

Visiting Lecturer/Professor

1. German Academic Exchange Service, DAAD, 2000 at the Technical Universitaet of Berlin, Germany.
2. German Academic Exchange Service, DAAD, 2004/2005 at Universitaet Duisberg-Essen, Germany.

Patents

Anti-Fire Locking System 2002 Malaysian Patent, Status: "Malaysian Patent Application Pending: Application Number PI20022811. Date of Filing: 24th July 2002"

Ongoing and Completed Research Activities/Grants

1. **Characterization & Peridynamic modeling of SMA based self healing of aerospace composite, UKM-DLP-2011-041, Dana Lonjakan Penerbitan, 01/09/2011 - 30/11/2012, RM100000.00, Project Leader**
2. SISTEM KENDERAAN BERKECEKAPAN BAHAN API OPTIMUM, DPP-2013-050, Dana Pembangunan Penyelidikan Kumpulan Penyelidikan, 01/01/2013 - 31/12/2013, RM50000.00, Co-researcher
3. **BIOMECHANICAL AND PHYSIOLOGICAL INVESTIGATION OF BRAIN MEMORY FUNCTION ENHANCEMENT OF PRIMARY SCHOOL CHILDREN THROUGH OPTIMIZED ROPE SKIPPING ACTIVITY, DPP-2013-089, Dana Pembangunan Penyelidikan Kumpulan Penyelidikan, 01/01/2013 - 31/12/2013, RM60000.00, Project Leader.**
4. PROBABALISTIC AND NON-PROBABALISTIC FORMULATION OF FATIGUE BEHAVIOUR IN MULTISCALE STRUCTURE, DPP-2013-031, Dana Pembangunan Penyelidikan Kumpulan Penyelidikan, 01/01/2013 - 31/12/2013, RM60000.00, Co-researcher
5. DEVELOPMENT OF A NATURAL FIBER FIBER SELF-PERFORATED FACING SOUND ABSORPTION PANEL, ERGS/1/2013/TK/UKM/02/1, Exploratory Research Grant Scheme (ERGS), 20/05/2013 - 19/05/2015, RM67000.00, Co-researcher
6. Investigation of New Metamaterial for Electromagnetic Absorption Reduction, ERGS/1/2012/STG05/UKM/02/6, Exploratory Research Grant Scheme (ERGS), 01/06/2012 - 31/05/2014, RM61000.00, Co-researcher
7. **Characterization and Peridynamic Modeling of Shape Memory Alloy-based Self-Healing Composite Aerospace, ERGS/1/2011/TK/UKM/01/2, Exploratory Research Grant Scheme (ERGS), 21/06/2011 - 20/12/2013, RM225000.00, Project Leader.**
8. A new Design of Triangular Shape Metamaterial for Specific Absorption reduction of Human Head, FRGS/1/2011/TK/UKM/02/1, Fundamental Research Grant Scheme (FRGS), 06/06/2011 - 05/12/2013, RM138000.00, Co-researcher.
9. Investigation of Sound Absorption Properties of Date Palm Fibers, GGPM-2012-073, Geran Galakan Penyelidik Muda, 01/10/2012 - 30/09/2014, RM40000.00, Co-researcher.
10. **Stochastic Nano Fatigue-Fracture Reliability and Control of Automobile Active Suspension**

System, UKM-GUP-NBT-08-26-100, Geran Universiti Penyelidikan, 01/06/2008 - 30/11/2011, RM100000.00, Project Leader

11. *Optimisation of Vibro-Acoustics and Fuel Efficiency Performance of An Automotive System, UKM-GUP-NBT-08-26-099, Geran Universiti Penyelidikan, 01/06/2008 - 31/05/2011, RM125000.00, Co-researcher*
12. *Operasi Universiti Penyelidikan, OUP-2012-145, OUP Kumpulan, 01/01/2012 - 31/12/2012, RM65000.00, Group Leader*
13. *Operasi Universiti Penyelidikan, OUP-2012-144, OUP Kumpulan, 01/01/2011 - 31/12/2011, RM50000.00, Group Leader*
14. *Operasi Universiti Penyelidikan, OUP-2012-109, OUP Kumpulan, 01/01/2010 - 31/12/2010, RM50000.00, Group Leader*
15. *Advancing Novel Aerospace Materials, AP-2012-022, Projek Arus Perdana, 01/10/2012 – 30/09/2014, RM100000.00, Project Leader*
16. *Development of Medical Instrumentation Based on Photoplethysmography, UKM-AP-TKP-07-2009, Projek Arus Perdana, 01/07/2009 - 30/06/2012, RM276000.00, Co-researcher*
17. **FUNCTIONAL ASSESSMENT AND PERFORMANCE PROFILING OF AN EXTERNAL PELVIC STABILIZATION APPARATUS :**
BRIM PELVIC BINDER, PRGS/1/11/TK/UKM/02/2, Prototype Development Research Grant Scheme (PRGS), 01/01/2012 - 31/12/2013, RM314000.00, Co-researcher.
18. **A NOVEL BULK METALLIC GLASS FOAM FOR AEROSPACE APPLICATIONS, 03-01-02-SF0860, ScienceFund MOSTI, 01/07/2012 - 30/06/2014, RM171400.00, Project Leader**
19. *Configuration-Based Support Tool For Reliability Prediction In Mechanical Components, 01-01-02-SF0366, ScienceFund MOSTI, 01/09/2007 - 31/07/2009, RM213400.00, Co-researcher.*
20. *Development Of A Fatigue Data Editing Algorithm For Road Vehicle Loadings In Time-Frequency Domain, 03-01-02-SF0052, ScienceFund MOSTI, 01/12/2006 - 30/11/2008, RM216720.00, Co-researcher*
21. **Bulk-Metallic Glasses And Its Applications: Constitutive Modeling, Finite Element Analysis And Experimental Investigation, 03-01-02-SF0257, ScienceFund MOSTI, 01/12/2006 - 31/10/2008, RM270180.00, Project Leader**
22. *Fault Diagnosis And Isolation Of Smart Engine Mounting System For Automotive Applications, 03-01-02-SF0218, ScienceFund MOSTI, 01/12/2006 - 31/10/2008, RM174780.00, Co-researcher*

Publications:

1991, 2000-2005

Nik Abdullah Nik Mohamed (1991). Die zum Strecktensor und Logarithmischen Strecktensor konjugierten Spannungstensoren der Kontinuumsmechanik. VDI-Verlag. Duesseldorf.

1. **Nik Abdullah Nik Mohamed** , 2000 , Tensor analisis kejuruteraan , Penerbit Universiti Kebangsaan Malaysia.
 2. **N. Abdullah**, Ingo Mueller, A. Musolf, O. Kaestner, H. Xu and G. Zak , 2002 , International Journal of Non-linear Mechanics , Observations on CuAlNi Single Crystals , 37, pp 1263-1274 ,
 3. Rasidi Rasani, Ahmad Kamal Ariffin, **Nik Abdullah Nik Mohamed** , 2001 , Proceedings of the 2nd International Conference on Advances in Strategic Technologies ICAST 2001 , Modelling of Vibration for a Thin Plate with Shape Memory Alloy Wire using Finite Element Method ,
 4. Rasidi Rasani, Ahmad Kamal Ariffin, **Nik Abdullah Nik Mohamed** , 2001. Prosiding Penyelidikan dan Pengembangan JKMB 2001 , Permodelan Getaran Bebas Plat Nipis yang Dikekang oleh Dawai Aloji Memori Bentuk.
 5. **Nik Abdullah Nik Mohamed**, Rasidi Rasani, Andre Musolf , 2001 , Prosiding Penyelidikan dan Pengembangan JKMB 2001 , Pengubahsuaian Model Mueller-Achenbach untuk Simulasi Loncatan Haba Dawai Aloji Memori Bentuk ,
- 2004-2005**

6. Ahmad Kamal Ariffin, **Nik Abdullah Nik Mohamed**, Shahrir Abdullah & Mohd Jailani Mohd Nor , 2005 , CEM 2005: Computational & Experimental Mechanics , CEM 2005 , 445
7. Reiza Zakia Mukhlis, **Nik Abdullah Nik Mohamed** and Mohd Jailani Mohd Nor , 2005 , Proceedings of Seminar on Advances in Malaysian Noise Vibration and Comfort (NVC 2005), 17-18 May 2005 , The implementation of electrorheological damper to improve vehicle road handling and ride comfort for Malaysian road condition , 105-113
8. Elwaleed Awad Khidir, **Nik Abdullah Mohamed**, and Mohd Jailani Mohd Nor Mohd Marzuki Mustafa. 2005. A New Concept of a Linear Smart Actuator. Sensor and Actuator A. (<http://www.sciencedirect.com/science/journals/09244247>)
9. Simin Ataollahi Oshkovr, **Nik Abdullah Nik Mohamed**, Che Husna Azhari, 2006, *Investigation of behavior of phase transformation in CuAlNi in shape memory alloy*. Manufacturing Science and Technology Proceedings of ICOMAST 2006, ISBN: 983-42051-1-2. pp 420-421.
10. **Mohamed N.A.N.**, Nor, M.J.M. & Mukhlis R.Z. 2005. Compromising Vehicle Handling and Passenger Ride Comfort Using ER Damper. *Mechanika*. 4(54). 50-54 ISSN 1392-1207
11. Hassan, M. R., Scarpa F., **Mohamed N.A.**, Acrenaz, Y. 2005. *Conventional and auxetic SMA Cellular structures*. American Society of Mechanical Engineers (ASME), Aerospace Div. Pp 451 – 456.

2006-2007

12. A. K. Ariffin, **N. A. N. Mohamed** and S. Fonna , 2006 , Jurnal Kejuruteraan UKM , Simulation of Free Piston Linear Engine Motion with Different Intake and Exhaust Port Position , 18:97-106
13. M.Z. Omar, **N.A. Nik Mohamed**, A. Zaharim, S. Abdullah, S. M. Haris & H. Basri , 2006 , WSEAS Transactions on Advances in Engineering Education , A study of employers satisfaction of engineering graduates in Malaysia , 6(3):506-510
14. Rahman M.M., Ariffin A.K., **Mohamed N.A.K.** , 2007 , International Journal of Mechanical and Materials Engineering Investigate the influences of shot peening on the fatigue life of vibrating cylinder block for a new free piston linear engine , 2(1):19-28
15. Elwaleed Awad Khidir, **Nik Abdullah Mohamed**, and Mohd Jailani Mohd Nor, Mohd Marzuki Mustafa , 2006 , Sensor and Actuator A , A New Concept of a Linear Smart Actuator. , (<http://www.sciencedirect> ,
16. M.Z. Omar, **N.A. Nik Mohamed**, A. Zaharim, S. Abdullah, S.M. Haris and H. Basri , 2007 , Prosiding Seminar Pengajaran dan Pembelajaran Berkesan Fakulti Kejuruteraan UKM, Bangi , Demand-supply trends and the engineering job market of Malaysian engineers ,
17. Ahmad Kamal Ariffin, **Nik Abdullah Nik Mohamed**, Shahrir Abdullah , 2007 , Proceedings of Computational & Experimental Mechanics (CEM2007) , CEM 2007 , 329
18. M.R.M. Akramin, A. M. Alshoaibi, M.S.A Hadi., A. K. Ariffin, **N.A.N. Mohamed** , 2007 , Journal of Zhejiang University Science: An International Journal of Applied Physics and Engineering , Probabilistic Analysis of Linear Elastic Cracked Structures , 8(11):1795-1799
19. M. M. Rahman, A. K. Ariffin, and **N. A. N. Mohamed** , 2007 , International Journal of Mechanical and Materials Engineering , Investigation of the Influences of Shot Peening on the Fatigue Life of Vibrating Cylinder Block for a New Free Piston Linear Engine , 2(1):19-28
20. Andanastuti Muchtar, Siti Aliyya Russly, **Nik Abdullah Nik Mohammed**, Mahamod Ismail dan Abdul Halim Shamsuddin , 2007 , Prosiding Seminar Pengajaran dan Pembelajaran Berkesan 2006 , Pembangunan sistem pemindahan kredit EU-ASEAN (EACTS) untuk meningkatkan kebolehergerakan pelajar , H:14-18 ,
21. **N. Nik Mohamed**, A. Muchtar, M. Ismail, S.A. Russly, A. Hunger, A. Ekadiyanto, B. Budiardjo, C. Morandi, I. Skalbergs, K. Ramli, P. D. Purnamasari, R. F. Sari, R. Menozzi , 2007 , Proc. 4th WSEAS/ IASME International Conference on Engineering Education 2007/ World Scientific and Engineering Academy and Society (WSEAS). Crete Island, Greece , Information package as facilitating tool for student mobility in European-Asean credit transfer system (eacts) student exchange program ,
22. M. Ismail, A. Hunger, S.A. Russly, A. Muchtar, **N. Nik Mohamed**, B. Budiardjo, C. Morandi, I. Skalbergs, P. D. Purnamasari, R. Menozzi , 2007 , Proc. International Conference on Engineering Education and Research. Melbourne, Australia , Comparison of Curricular Content for the Electrical, Electronics and Computer Engineering Bachelor Program within European-ASEAN Credit Transfer System (EACTS) Network. ,
23. M. Ismail, A. Hunger, C. Morandi, R. F. Sari, S. A. Russly, I. Skalbergs, A. Muchtar, **Nik Abdullah Mohamed**, R. Menozzi. , 2007 , Proc. Association of South East Asian Institutions of Higher Learning Conference 2007. Perth, Australia , Initiating learning outcome within EU_ASEAN credit transfer system network curriculum ,
24. K. Ramli, B. Budiardjo, P.D. Purnamasari, A. Ekadiyanto, A. Hunger, E. de Iaco, M. Ismail, R. Menozzi, C. Morandi, A. Muchtar, **N.A. Nik Mohamed**, G. Passaseo, S.A. Russly, R.F. Sari, H. Shamsuddin, I. , 2007 , Proc. 10th UICEE Annual Conference on Engineering Education. Bangkok. March 2007. UNESCO International Centre for Engineering Education (UICEE), pg 261-264. , EU-ASEAN Credit Transfer System in Engineering Education. , pg 261-264. ,
25. Akramin M.R.M., Alshoaibi Abdunaser, Hadi M.S., Ariffin A.K.A., **Mohamed N.A.N.** , 2007 , Journal of Zhejiang University SCIENCE A , probabilistic analysis of linear elastic cracked structures , 8(11); 1795-1799
26. **N. A. Nik Mohamed**, A.K. Ariffin and Z. Rasid , 2007 , Proc EM3ARC 2007 Computational and Experimental Mechanics , THERMAL POST-BUCKLING OF ANGLE-PLY LAMINATED COMPOSITE PLATES APPLYING A SEQUENCE OF LINEAR EIGEN-VALUE ANALYSIS APPROACH USING THE FINITE ELEMENT METHOD ,

2008- 2009

27. P. Thamburaja a, N. Nikabdullah , 2008 , Computer Methods in Applied Mechanics and Engineering , A macroscopic constitutive model for shape memory alloys: Theory and finite elements simulation .
28. R. Ekambaram, P. Thamburaja, **N. Nikabdullah** , 2008 , Mechanics of Materials , On the evolution of free volume during the deformation of metallic glasses at high homologous temperatures , 40(6):487-506
29. Simin Ataollahi Oshkovr, **Nik Abdullah Nik Mohamed**, Che Husna Azhari, Siavash Talebi Taher, Azim Ataollahi Oshkovr , 2008 , American Engineering and Applied Science Journal , Multistage development of Müller-Achenbach model for shape memory alloy , 1(4):248-251
30. Khidir E.A, **Mohamed N.A.N.**, Nor, M.J.M, Mustafa, M.M. , 2008 , Proceedings of 13th International AMME Conference , A new technique for actuating parallel manipulators ,
41. Ekambaram R, Thamburaja P, **Nikabdullah N** , 2008 , 13th Int Conference on Applied Mechanics and Mechanical Engineering , Coupled thermo-mechanical analysis of shear band localization in bulk metallic glasses ,
42. Thanburaja P, **Nikabdullah N.** , 2008 , Smart Devices: Modeling of Material Systems, An International Workshop, American Institute of Physics, 2008 , A coupled thermo-mechanical theory for polycrystalline SMAs ,
43. Akramin M.R.M., Alshoaibi A.M., Hadi M.S.A., Ariffin A.K., **Mohamed N.A.N.** , 2008 , International Journal of Mechanical and Materials Engineering , Probabilistic assessment for cracked structures analysis , 3(1):1-6
44. Elwaleed Awad Khidir, **Nik Abdullah Mohamed**, Mohd Jailani Mohd Nor, Mohd Marzuki Mustafa , 2008 , Sensors

- and Actuators A: Physical , A new method for actuating parallel manipulators , 147(2):593-599
45. M.R. Hassan, F. Scarpa, M. Ruzzene, **N.A. Mohammed** , 2008 , Materials Science and Engineering A , Smart shape memory alloy chiral honeycomb , 481-482(1-2):654-657
46. A. Muchtar, M.Z. Omar, S. A. Russly, A. Hunger, **N.A. Nik Mohamed** & M. Ismail , 2008 , The 9th AUN-QA Workshop on Mechanism for ASEAN Credit Transfer System and the 3rd Actual Quality Assessment at Programme Level , Success and challenges of Asia-Link Project and Lessons for ASEAN ,
47. Kalamullah Ramli, B. Budiadjo, R.F. sari, A. Hunger, I. Skalbergs, R. Menozzi, C. Morandi, M. Ismail, A. Muchtar, **N.A. Nik Mohamed**, S.A. Russly, P.D. Purnamasari , 2008 , the 9th AUN-QA Workshop on Mechanism for Credit Transfer System and the 3rd Actual Quality Assessment at Programme Level, Jakarta , EU-ASEAN Credit Transfer System in Engineering Education: Lesson Learned ,
48. Suraya Mohd. Tahir, Ahmad Kamal Ariffin, Norhamidi Muhamad and **Nik Abdullah Nik Mohamed** , 2008 , Jurnal Kejuruteraan , Crack propagation of metal powder compact , 20:115-124
49. Sallehuddin Mohamed Harris, Muhammad Khalid Zakaria, **Nik Abdullah Nik Mohamed** , 2009 , Proceedings of the 2009 International Conference on Space Science and Communication, Port Dickson, Negeri Sembilan, Malaysia , Position control of a two-link satellite tracker manipulator using optical flow , 200-204 ,
50. P. Thamburaja, **N. Nikabdullah** , 2009 , Computer Methods in Applied Mechanics and Engineering , A macroscopic constitutive model for shape memory alloys: Theory and finite-element simulations , 198(9-12):1074-1086
51. M. Ismail, A. Hunger, K. Ramli, R. Menozzi, I. Skalbergs, S. A. Russly, A. Muchtar, **N.A. Nik Mohamed** . , 2008 , The 11th UNESCO-APEID International Conference on Reinventing Higher Education. Bangkok. December 2007. UNESCO Asia and Pacific Regional Bureau for Education. , Challenges ahead for EACTS; Implementation and Dissemination of a new Credit Transfer System. ,
52. M. R. Hassan, F. Scarpa, **N. A. Mohamed**, and M. Ruzzene , 2008 , Physica Status Solidi (B) Basic Research , Tensile properties of shape memory alloys chiral honeycomb , 245(11):2440-2444
53. R. Ekambaram, P.Thamburaja, and **N. Nikabdullah** , 2009 , The International Journal of Structural Changes in Solids/Mechanics and Application , Shear localization and damage in metallic glasses at high homologous temperatures , vol 1 no 1 2009: pp 15-29
54. Hassan M.R., Scarpa F., **Mohamed N.A.** , 2009 , Journal of Intelligent Material Systems and Structures , In-plane tensile behavior of shape memory alloy honeycombs with positive and negative poisson's ratio , 20(8):897-905
55. Akramin M.R.M., Ariffin A.K., Alshoaibi A., Hadi M.S.A., Huzni S., **Mohamed N.A.N.** , 2008 , Transactions Hong Kong Institution of Engineers , Probabilistic finite element for fracture mechanics , 15(2):1-8
56. Ahmad Kamal Ariffin Mohd Ihsan, **Nik Abdullah Nik Mohamed**, Fadhlur Rahman Mohd Romlay , 2008 , Jurnal Kejuruteraan , Dual boundary element method in modeling of fatigue crack propagation , 20:45-55

2010- 2011

57. E. Azrulhisham, Y.M. Asri, A.W. Dzuraidah, **N.M. Nik Abdullah**, C.H. Che Hassan and A. Shahrom , 2011 , The Open Industrial and Manufacturing Engineering Journal , Application of Road Simulator Service Loads in Automotive Component Durability Assessment , 4:1-7
58. Romlay, F.R.M., Ouyang, H., Ariffin, A.K., **Mohamed, N.A.N.** , 2010 , Engineering Analysis with Boundary Elements , Modeling of fatigue crack propagation using dual boundary element method and Gaussian Monte Carlo method 34(3):297-305
59. Ekambaram R., Thamburaja P., Yang H., Li Y., **Nikabdullah N.** , 2010 , International Journal of Solids and Structures , The multi-axial deformation behavior of bulk metallic glasses at high homologous temperatures , 47(5):678-690
60. P. Thamburaja and **N. Nikabdullah** , 2011 , Scripta Materialia , The transition from homogeneous flow to fracture in metallic glasses at high-homologous temperatures , 65(9):751-754
61. **N. Nik Abdullah**, José F.O. Correia, Abílio M.P. de Jesus, Mohammad Hadi Hafezi, S. Abdullah , 2011 , Engineering Procedia , Assessment of fatigue crack growth data available for materials from Portuguese bridges based on UniGrow model ,
62. **N. Nik Abdullah**, M. Hadi Hafezi and S. Abdullah , 2010 , 6th Australasian Congress on Applied Mechanics, ACAM 6 Perth, Australia , Determination of micro-support constant ρ^* of neuber's rule using elastic plastic fracture mechanics ,
63. **N. Nik Abdullah**, M. Hadi Hafezi, S. Abdullah , 2010 , World Academy Of Science, Engineering And Technology , A new engineering stochastic two-parameter model (smax. s) for calculating damage rate ,
64. **N. Nik Abdullah** , Mohammad Hadi Hafezi , S. Abdullah , 2010 , High-Low Sequence Loading Effect on the Crack Growth Rate using UniGrow Model ,
65. **N. Nik Abdullah**, M.Hadi Hafezi and S. Abdullah , 2011 , Conference: 8th International Conference on Fracture and Strength of Solids (FEOS) 2010 Location: Kuala Lumpur, MALAYSIA Date: JUN 07-09, 2010(Key Engineering Materials) Analytical concepts for recent development in fatigue crack growth under variable amplitude loading. Part I: qualitative interpretation , 462-463:59-64 ,
66. E. A. Azrulhisham, Y. M. Asri, A. W. Dzuraidah, **N. M. Nik Abdullah**, A. Shahrum, and C. H. Che Hassan , 2010 , International Journal of Quality, Statistics, and Reliability , Evaluation of Fatigue Life Reliability of Steering Knuckle Using Pearson Parametric Distribution Model , Article ID 816407
70. E.A. Azrulhisham, D.A. Wahab, S. Abdullah, **N.A.N. Mohamed** and C.H. Che Haron , 2011 , Regional Conference on Automotive Research (ReCAR) 2011 , Inverse power law model for extrapolation of fatigue life curves ,

2012

71. E.A. Azrulhisham, D.A. Wahab, S. Abdullah, **N. Nikabdullah**, C.H. Che Haron , 2012 , International Review of

- Mechanical Engineering , Inverse Power Law Model for Extrapolation of Fatigue Life Curves , 6(3):685-690
72. Choon Lih Hoo, Sallehuddin Mohamed Haris, **Nik Abdullah Nik Mohamed** , 2012 , Journal of Zhejiang University-Science C-Computers & Electronics , A floating point conversion algorithm for mixed precision computations , 13(9):711-718
73. Habib Ullah, M., Islam, M.T., Mandeep, J.S., Misran, N., **Nikabdullah, N.** , 2012 , Elektronika ir Elektrotehnika , A compact wideband antenna on dielectric material substrate for K band , 123(7):75-78
74. Mohammad Rasidi Rasani, Jiyuan Tu & **Nik Abdullah Nik Mohamed** , 2012 , Applied Mechanics and Materials: Aerospace Technology IV, UPM, Numerical investigation of flow-induced vibration of a cantilever beam for a piezoelectric energy harvester , Vol. 225, pp. 97-102
75. Nur Aisyah Husni, Mohammad Rashed Iqbal Faruque, Mohammad Tariqul Islam, Norbahiah Misran, **Nik Abdullah Nik Mohamed** , 2012 , Science and Engineering of Composite Materials (SECM) , Effects of electromagnetic absorption towards human head due to variation of its dielectric properties at 900, and 1900 MHz with different antenna substrates , 19(3):271-277
76. Elwaleed Awad Khidir, **Nik Abdullah Mohamed**, Sallehuddin Mohamed Haris , 2012 , Sensors & Transducers , Geometrical Amplification of SMA Actuator Displacement Using Externally Actuated Beam , 144(9):92-100
77. **N. Nik Abdullah**, Mohammad Hadi Hafezi and S. Abdullah , 2012 , Materials with Complex Behaviour II. , 1, 647-660. Springer Verlag. Berlin Heidelberg New York.

2013

78. Olaf Weckner, **Nik Abdullah Nik Mohamed** , 2013 , Applied Mathematics and Computation , Viscoelastic material models in peridynamics , 219:6039-6043
79. Mohammad Rashed Iqbal Faruque, Mohammad Tariqul Islam, **Nik Abdullah Nik Mohamed**, Baharudin Yatim, Mohd. Alauddin Mohd. Ali , 2013 , Materiali in tehnologije / Materials and technology , Analysis of the Effects of Metamaterials on the Radio-Frequency Electromagnetic Fields in the Human Head and Hand , 47(1):129-133
80. Elwaleed Awad Khidir, **Nik Abdullah Nik Mohamed**, Mohd Jailani Mohd Nor, Mohd Faizal Mat Tahir, Rozli Zulkifli , 2013 , IOP Conference Series: Materials Science and Engineering (MOIME 2013) , Experimental investigation of sound absorption properties of perforated date palm fibers panel , 46 (2013):1-5 ,

Conferences Attended (extract from Universiti Kebangsaan Malaysia UKM's Database system, SMPU)

1. 02-07-2012 - 04-07-2012 , Workshop on Stormwater management and Flood modeling , Kebangsaan . Peserta Biasa. ,
2. 28-03-2012 - 01-04-2012 , Integriertes Wasserressourcenmanagement (Integrated Water sources management) , Antarabangsa . Peserta Biasa.
3. 14-12-2011 - 16-12-2011 , BENGKEL KUMPULAN PENYELIDIKAN BIOMEKANIK , Kebangsaan . Pengerusi.
4. 14-11-2011 - 20-11-2011 , 9th International Probabilistic Workshop , Antarabangsa . Peserta Biasa.
5. 22-05-2011 - 02-06-2011 , Lernen, Netwerke, Kooperieren-Neue Konzepte und Soziale Medien (learning, Networking, Cooperation - New Concepts and social media) , Antarabangsa . Pembentang. , , ,
6. 07-07-2010 - 09-07-2010 , 4th International Conference on Advanced Computational Engineering and
7. Experimenting, ACE-X 2010 , Antarabangsa . Pembentang. , , ,
8. 13-12-2009 - 17-12-2009 , KONGRES PENGAJARAN DAN PEMBELAJARAN 2009 , Universiti . Peserta Biasa. , , ,
9. 11-08-2009 - 12-08-2009 , Software Training on SimulationX , Antarabangsa . Peserta Biasa. , , ,
10. 29-05-2009 - 31-05-2009 , Kolokium Penyelidikan Jabatan Kejuruteraan Mekanik & Bahan 2009 , Jabatan / Fakulti . Peserta Biasa.
11. 15-03-2009 - 21-03-2009 , Research collaboration in the area coated shape memory alloys with Dublin City University , Antarabangsa . Koordinator Projek. , , ,
12. 22-12-2008 - 24-12-2008 , Kolokium Bioteknologi Perubatan & Kesihatan , Universiti . Panel.
13. 24-10-2008 - 27-10-2008 , Bengkel Penyelidikan Projek CAE , Jabatan / Fakulti . Ahli Jawatankuasa
14. 24-08-2008 - 03-09-2008 , 5th EU-ASEAN Credit Transfer System (EACTS) Workshop , Antarabangsa . Pembentang. , Ahli Jawatankuasa. , ,
15. 22-02-2008 - 22-02-2008 , Lawatan Projek Science Fund ke NUS , Antarabangsa . Koordinator Projek.
16. 21-10-2007 - 27-10-2007 , Lawatan Kerjasama Penyelidikan ke Tech Univ. Berlin (TUB) dan ke Univ Duisburg Essen (UDE) , Antarabangsa . Peserta Biasa.
17. 30-07-2007 - 03-08-2007 , 4th Workshop/ 3rd Summer School on the EACTS , Antarabangsa . Pembentang. , Plenary Presenter.
18. 23-07-2007 - 27-07-2007 , The 4th WSEAS / IASME International Conference on ENGINEERING EDUCATION (EE'07) , Antarabangsa . Pengerusi Sesi. , Pembicara.
18. 29-06-2007 - 01-07-2007 , Kolokium Jabatan 2007 , Jabatan / Fakulti . Pengerusi. ,

Plenary Presenter.

19. 09-03-2007 - 20-03-2007 , Workshop and Summer school on The EU-ASEAN Credit Transfer System (EACTS) , Antarabangsa . Ahli Jawatankuasa . , Pembentang.
20. 06-08-2006 - 12-08-2006 , Lawatan Rasmi kaji halatuju pendidikan Kejuruteraan Malaysia ke ABEEK Korea dan JABEE Jepun . Ahli Jawatankuasa . , Pembicara.
21. 11-07-2006 - 13-07-2006 , 2006 WSEAS International Conference ENGINEERING EDUCATION (EE'06) , Jabatan / Fakulti . Pembentang.
22. 29-08-2003 - 30-08-2003 , sanggar kerja penilaian kurikulum matematik kejuruteraan 2003 . Koordinator Projek.
23. 12-08-2003 - 14-08-2003 , The 3rd International Conference on Advances in Strategic Technologies , Antarabangsa . Pengerusi Sesi . , Pembentang.
24. 20-05-2003 - 21-05-2003 , Conference on Advanced Materials (CAM 2003) . , Antarabangsa . Pembentang.
25. 21-04-2003 - 23-04-2003 , Intelligent Systems And Soft Computing , Antarabangsa . Peserta Biasa.
26. 10-04-2003 - 12-04-2003 , Persidangan Antarabangsa Pembelajaran Elektronik EU-Asia (EAEL 2003) . , Antarabangsa . Peserta Biasa.
27. 09-07-2001 - 21-07-2001 , 2nd German-Indonesia-Malaysia Workshop, Gim2001, 9-21 July 2001 , Antarabangsa . Pembicara . , Pembicara . , Pembicara.
28. 09-07-2001 - 21-07-2001 , 2nd GERMAN-INDONESIA-MALAYSIA WORKSHOP, GIM2001 , Antarabangsa . Pembicara . , Pembicara . , Pembicara.
29. 01-04-2001 - 12-04-2001 , 29th International EXposition of Invention and New Products . Pembentang.
30. 07-11-2000 - 08-11-2000 , International Advanced Technology Forum 2000 , Kebangsaan . Pembicara.

Conferences Organized (extract from Universiti Kebangsaan Malaysia UKM's Database system, SMPU)

1. 14-12-2011 - 16-12-2011, BENGKEL KUMPULAN PENYELIDIKAN BIOMEKANIK, CYBERVIEW RESORT & SPA, CYBERJAYA, Pengerusi ,
2. 14-11-2011 - 18-11-2011, United Nation/Malaysia EXPERT MEETING ON HUMAN SPACE TECHNOLOGY, Pullman Putrajaya Lakeside, Putrajaya, Malaysia, Timbalan Pengerusi , 11-07-2011 - 13-07-2011, 2011 International Conference on Space Science and Communication (IconSpace2011), The Gurney Resort Hotel & Residences, Pulau Pinang, Malaysia, Pengerusi ,
4. 07-06-2010 - 09-06-2010, The 8th International Conference on Fracture and Strength of Solids (FEOFS) 2010, Kuala Lumpur, MALAYSIA, Ahli Jawatankuasa ,
5. 04-12-2009 - 04-12-2009, SANGGAR KERJA PEMURNIAN HALATUJU PUSAT PENYELIDIKAN PENDIDIKAN KEJURUTERAAN, PURI PUJANGGA, UKM, Ahli Jawatankuasa ,
6. 26-10-2009 - 27-10-2009, International Conference on Space Science and Communication 2009 (IconSpace), Thistle Port Dickson Resort, Port Dickson, Negeri Sembilan., Ahli Jawatankuasa ,
7. 03-06-2009 - 06-06-2009, Mini Symposium (Pre-Conference) on Fracture and Strength of Solids (FEOFS) 2009, Copthorne Orchid Hotel, Penang, MALAYSIA, Ahli Jawatankuasa ,
8. 27-03-2009 - 29-03-2009, SANGGAR KERJA PUSAT PENYELIDIKAN PENDIDIKAN KEJURUTERAAN, THE ROYALE BINTANG, KUALA LUMPUR, Ahli Jawatankuasa ,
9. 26-03-2009 - 26-03-2009, Bengkel Perancangan Penerbitan dan Pusat Penyelidikan Automotif, Mines Resort City, Seri Kembangan, Ahli Jawatankuasa ,
10. 06-02-2009 - 09-02-2009, Sanggar Kerja Penyelidikan dan Pembangunan FKAB 2009, The Northam Hotel, Penang, Ahli Jawatankuasa ,
11. 24-10-2008 - 27-10-2008, BENGKEL PENYELIDIKAN PROJEK "CAE-Intelligent & Computational Engineering" ., The Orient S Resort Lumut, Perak., Timbalan Pengerusi ,
12. 05-07-2008 - 05-07-2008, Workshop on Technofund Project: Computationally Optimised Fuel-Efficient Concept Car, Palm Garden Hotel, IOI Resort, 62502 Putrajaya, Malaysia, Urusetia ,
13. 02-07-2008 - 02-07-2008, Seminar on Instrumentation and Diagnostic Measurement, Hotel Marriot, Putrajaya, Ahli Jawatankuasa ,
14. 21-04-2008 - 21-04-2008, Bengkel Penyelidikan Projek 'Structurally Optimised & Fuel Efficient Concept Car', Shangri-La Hotel Putrajaya, Malaysia, Ahli Jawatankuasa ,
15. 27-11-2007 - 28-11-2007, Regional Conference of Engineering, Mathematics, Mechanical, Manufacturing & Architecture (EM3ARC) 2007, Palm Garden Hotel, Putrajaya, Petugas-petugas lain ,
16. 29-06-2007 - 01-07-2007, Kolokium Jabatan Kejuruteraan Mekanik dan Bahan, RESIDENCE INN, CHERATING, Pengerusi ,
17. 08-06-2007 - 08-06-2007, SEMINAR KEBANGSAAN ANGKASA 2007 HALA TUJU PENYELIDIKAN SAINS ANGKASA DI MALAYSIA, HOTEL SHANGRI-LA, PUTRAJAYA., Ahli Jawatankuasa ,
18. 09-01-2004 - 11-01-2004, Sanggar Kerja Penyelidikan MEMS Automotif: Kumpulan Instrumentasi dan Diagnostik, A Famosa Resort, Melaka, Ahli Jawatankuasa ,
19. 05-09-2003 - 07-09-2003, Bengkel Penyelidikan Linear Generator UTP/UKM/UM, Awana Resort, Genting Highland, Setiausah

International Appointments

Committee member of the 4th WSES/IASME International Conference on Engineering Education (EE 07) Crete Island, Greece, 24th-26th July (Prof Nikos Mastorakis, WSEAS President)
Workshop Coordinator in the Malaysia France University Center – 1st Bilateral Conference Kuala Lumpur, 7 -8 Dec. 2006 (Simon Cordonnier as Project Coordinator)

Other Appointments

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Committee member in the Committee for the Study for Vision and Direction of Engineering Education in Malaysia. 2005. Board of Engineering Deans of Malaysian Institution of Higher Learning.

Reviewer for more than 10 articles in national and international journals including the Article in the International Journal "Finite Element in Analysis and Design" ELSEVIER SCIENCE, United Kingdom: *Elastic-Plastic Finite Element Analysis of an Anisotropic Laminated Composite Plate based on Refined Plate Theory.*(2003), Sensor and Actuator Part B. Sains Malaysiana.

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Language Proficiency

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1. 14-12-2011 - 16-12-2011, BENGKEL KUMPULAN PENYELIDIKAN BIOMEKANIK, CYBERVIEW RESORT & SPA, CYBERJAYA, Pengerusi ,
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