

## Dr. Hjh. Norma Binti Alias's BRIEF CV



### Personal Details

**Name:** Dr. Hjh. Norma Binti Alias

**Position:** Senior Lecturer and Permanent Researcher

**Address:** IBNU SINA INSTITUTE FOR FUNDAMENTAL SCIENCE STUDIES 81310 Technology University of Malaysia, Skudai, Johor

**Email:** [norma@mel.fs.utm.my](mailto:norma@mel.fs.utm.my), [norma@ibnusina.utm.my](mailto:norma@ibnusina.utm.my)

**Web Site:** <http://www.ibnusina.utm.my>

**Age:** 42 Years Old

**Status:** Married with one daughter

### Academic Qualifications (Place/Year)

1. PhD (Industrial Computing: Parallel Computing), Title : IADE and Age Methods in Solving Parabolic Equations On Distributed parallel Computer Systems, 24<sup>th</sup> 2004, Universiti Kebangsaan Malaysia.
2. MSC (Industrial Computing), 1997, Universiti Kebangsaan Malaysia.
3. BSC (Mathematics), 1991, Universiti Kebangsaan Malaysia.
4. Mombusho, 1992
5. Matriculation Universiti Kebangsaan Malaysia, 1986
6. Malaysia Education Certificate, 1985.

### Field of Specialization

Industrial Computer, Numerical Computation, Scientific Computing, High Performance Computing on Distributed Parallel Computer Systems, Grid Computing and software Engineering

### Working Experiences

Numb	University	Position	duration
1	Technology MARA Institute University	Young Lecturer Scheme	1991-1992
2	Universiti Teknologi Malaysia:		
	i. Preparatory Center to Japan	Education Officer	1992-1996
	ii. Faculty of Science	Lecturer	1997-2007
	iii. Ibnu Sina Institute Faculty of Science for the Fundamental Science Studies	Senior Lecturer and permanent researcher	2008-2009
		Associate Professor	2009-Now
3	King Saud University, Riyadh, Saudi Arabia	Associate Professor	2010-Now

## Publications

Journal international/Regional

1.  
Norma Alias, Mohd Ikhwan Safa bin Masseri, Md. Rajibul Islam, Siti Nurhidayah Khalid. "The Visualization of Three Dimensional Brain Tumors' Growth on Distributed Parallel Computer Systems". Journal of Applied Sciences. Asian Network for Scientific Information (ANSINET), 2009, vol. 9(3), pp. 505-512. (ISSN: 1812-5654).
  2.  
Mohd Salleh Sahimi, and Norma Alias, and Noreliza Abu Mansor, and Norhalena Mohd Nor, (2003) Parabolic-Elliptic Correspondence of a Three-Level Finite Difference Approximation to the Heat Equation. Bulletin of the Malaysian Mathematical Sciences Society, 26 (1). pp. 79-85. ISSN 0126-6705
  3.  
The Alternating Group Explicit Iterative (AGE) Method to Solve parabolic and Hyperbolic partial Differential Equations, Mohd Salleh Sahimi, Norma Alias, Noreliza Abu Mansor and Norhalena Mohd Nor, 2003.in Tien,C.I. and Chawla, T.C.(Ed), Annual Review of Numerical Fluid Mechanics and Heat Transfer, 2, 283-389.
  4.  
Alias, N., Sahimi, M.S. & Abdullah, A.R. 2003. The AGEB Algorithm for Solving the Heat Equation in Two Space Dimensions and Its Parallelization on a Distributed Memory Machine, Recent Advances in Parallel Virtual Machine and Message Passing Interface, Jack Dongarra, Domenico Laforenza, Salvatore Orlando (Eds.) Lecturer Notes In Computer Sciences, Springer-Verlag. Berlin, Page 214-221. ISSN: 0302-9743 (Print) 1611-3349 (Online)
  5.  
Sahimi, M.S. & Alias, N., 2001. The AGEB Algorithm for solving the Heat Equation in Three Space Dimensions and Its Parallelization Using PVM. Lecturer Notes In Computer Sciences, Springer-Verlag. 2074 pp 918-929.
  6.  
M.S Sahimi, N.A. Mansor, N.M. Nor, N.M. Nusi, Norma Alias. A High accuracy variant of the Iterative Alternating Decomposition Explicit Method for Solving the Heat Equation. International Journal of Simulation and processing Modelling (2006). Vol.2. PP 45-49.
  7.  
<sup>(1)</sup>Norma Alias, <sup>(1)</sup>Norhafizah Hamzah, <sup>(1)</sup>Norsarahaida Saidina Amin, <sup>(2)</sup>, High Performance Computing for temperature prediction Based on Heterogeneous Cluster Workstations, Journal of The Franklin Institute.
  8.  
Norhafiza Hamzah, Norma Alias, Norsarahaida Saidina Amin, The parallelization of the keller box method on heterogeneous cluster of workstations, Journal of Fundamental Sciences, ISSN 1823-626X, 253-259, <http://www.ibnusina.utm.my/jfs>
  9.  
High Performance Simulation for Brain Tumors Growth Using Parabolic Equation on Heterogeneous Parallel Computer Systems, Norma Alias, Norfarizan Said, Journal of Information Technology and Multimedia 2007 issn 1823-0113 volume 4 page 39-52
  10.  
The parallelization of the Keller box method on heterogeneous cluster of workstations Norhafiza Hamzah, Norma Alias, Norsarahaida S.Amin Journal of Fundamental Sciences, 2008
  - 11.
-

Curing Simulation of Thermoset Composites Using the Age Algorithm, Amna Abdurrahman, Ahmad Kamal bin Zulkifle, Norma Alias Ishak Hashim Malaysia, Journal of Science 26: 5-15 (2007)

12.

High Performance Visualization of Human Tumors Growth Software, Book Series: Lecture Notes in Computer Science Publisher : Springer Berlin / Heidelberg ISSN : 0302-9743 (Print) 1611-3349 (Online)

Volume : 5336/2008 DOI: 10.1007/978-3-540-92859-1 Copyright :2008 ISBN: 978-3-540-92858-4

13.

The Visualization of Three Dimensional , Brain Tumors` Growth on Distributed Parallel Computer Systems, urnal of Applied Sciences. Asian Network for Scientific Information (ANSINET). Vol. 9(3), pp. 505-512, 2009. ISSN: 1812-5654

14.

Parallelization of Temperature Distribution Simulations for Semiconductor and Polymer Composite Material on Distributed Memory Architecture, .Lecture Notes in Computer Science,ISSN 0302-9743 pp. 392-398 and Proc. of The 10<sup>th</sup> International Conference, PaCT 2009, Novosibirsk, Russia, August/ September 2009, Scopus and index journal)

15.

The Granularity Analysis of parallel IADE and AGE Families for Solving Multidimensional Parabolic Type Problems (In reviewing process for Journal Applied Mathematics and Computation.

16.

High Performance Simulation for Brain Tumors Growth Using Parabolic Equation on Heterogeneous Parallel Computer Systems Norma Alias, Norfarizan Mohd Said , Journal of Information Technology & Multimedia , 2007, ssn 1823-0113 Vol. 4, 39-52

17.

The Visualization of Power Density and Temperature Distribution of Electronic System using Elliptic PDE Solver, Norma Alias, Noriza Satam, Zarith Safiza Abd Ghaffar, Jurnal Teknologi Maklumat, 2008, Jilid 20, 140-148

18.

Sequential Algorithm of Parabolic Equation in Solving Thermal Control Process on Printed Circuit Board, , Norma Alias, Fatimah Sham Ismail, Ali Hassan Mohamed Murid, Zarith Safiza Abd Ghaffar, Hazrina Hassan Journal of Fundamental Science, issn: 1823-626x Vol. 4, No 2, 379-385

19.

An application of PDE to predict Brain Tumor Growth using High Performance Computing System, Norma Alias, Md. Rajibul Islam, Tan Yin San, Roziha Darwis,Daffodil International University Journal of Science and Technology, volume 5, issue 1, January 2010 of DIUJST

20.

An Improved Parallel AGE Method to Solve Incomplete Blow-up Problem through High Performance Computing System,Norma Alias, Md. Rajibul Islam, Nurul Ain Zhafarina Muhamad, Noriza Satam and Norhafiza Hamzah ,International Journal of Open Problems in Computer Science and Mathematics, Int. J. Open Problems Complex Analysis, Vol. 3, No. 2, June 2010 ISSN 2074-2827; Copyright © ICSRS Publication, 2010, [www.i-csrs.org](http://www.i-csrs.org) Indexed by EI, DBLP, INSPEC

21.

Solving Parabolic Equation using Two Stage Iterative Alternating Decomposition Explicit (IADE) Method,, Noreliza Abu Mansor, Ahmad Kamal Zulkifle, Norma Alias and Ishak Hashim, European Journal of Scientific Research ISSN: 1450-216X / 1450-202X, Accepted

22.

Temperature Behavior Visualization on Rubber Material Involving Phase Change Simulation Norma

---

Alias, Nazeeruddin Yaacob, Mohamed Othman, Roziha Darwis, Nurashikin Abdullah, Teh Yuan Ying. Journal of Fundamental Science, 2008, Vol 1, PP 55-62

23.

Parallel System for Abnormal Cell Growth Prediction Based on Fast Numerical Simulation, Norma Alias<sup>1</sup>, Md. Rajibul Islam<sup>2</sup>, Rosdiana Shahir<sup>3</sup>, Hafizah Hamzah<sup>3</sup>, Noriza Satam<sup>3</sup>, Zarith Safiza<sup>3</sup>, Roziha Darwis<sup>3</sup>, Eliana Ludin<sup>1</sup> and Masrin Azami<sup>1</sup> Lecture Notes in Computer Science (**accepted for 2010**) (Scopus and index journal)

24.

Parallelization of 2-D Parabolic Problems in two Distributed Environments. Norma Alias, Che Rahim Che Teh International Journal of Numerical Methods for Heat and Fluid Flow (review Number: HAR-Mar-2009-0031[1])

25. Journal title: Applied Mathematics and Computation

Article title: The Parallelization of New Variance AGE Method for 3D cylindrical Laser Glass Interaction problem Manuscript number: AMC-D-09-01758

26. Grounded Theory: A Short Cut to Highlight a Researchers and Intellectuality **Author:** Abdul Hafidz Haji Omar, Dayang Hj. Tiawa Awang Hj. Hamid, Norma Alias and Md. Rajibul Islam **Source:** Journal of Social Sciences 6(2): 276-281 , 2010

27. Norma Alias and Md. Rajibul Islam, ?A Review of the Parallel Algorithms for Solving Multidimensional PDE Problems?, Journal of Applied Sciences. Asian Network for Scientific Information (ANSINET). Vol. 10 (19), pp. 2187-2197, 2010. (ISSN: 1812-5654).

### **International proceeding/ International conference**

1.

Sequential Algorithm of Parabolic Equation in Solving Thermal Control Process on Printed Circuit Board , , Norma Alias, Fatimah Sham Ismail, Ali Hassan Mohamed Murid, Zarith Safiza Abd Ghaffar, Hazrina Hassan Regional Annual Fundamental Science Seminar 2008 (RAFSS 2008),

2.

Norhafiza Hamzah, Norma Alias, Norsarahaida Saidina Amin, The Parallelization of the Keller-Box Method Using High Performance Computing, Simposium Kebangsaan Matematik dan Masyarakat 2008, 13 & 14 Februari 2008.

3.

Norma Alias, Nazeeruddin Yaacob, Mohamed Othman, Nurashikin Abdullah, Teh Yuan Ying, Roziha Darwis, Temperature Behavior Visualization on Rubber Material Involving Phase Change Simulation, Nazeeruddin Yaacob, Mohamed Othman, Roziha Darwis, Nurashikin Abdullah, The Yuan Ying, Regional Annual Fundamental Science Seminar 2008 (RAFFS '08), Proceedings Regional Annual Fundamental Seminar (RAFSS 2008) 27-29 May 2008

4.

Norma Alias & Farahwahida, Kepentingan penggunaan sistem komputer selari dalam meningkatkan peradaban ummah, International Seminar Islamic Science and Technology INSTST 2008-08-04 Putra World Trade Centre ,

---

K. Lumpur 18-19 Mrch 2008

5.

Norma Alias, Norfarizan, Siti Nur Hidayah Khalid, Dolly Sin, Phang Tau Ing, The parallelism algorithm of human tumor growth using high performance computing, The 2<sup>nd</sup> International Conference on Pervasive Computing Technologies for Healthcare 2008, Tampere, Finland, 29.1-1.2.2008.

6.

Norma Alias, Norfarizan, Siti Nur Hidayah Khalid, High Performance Visualization of Human Tumor Growth Software, VECPAR'08 -8<sup>th</sup> International Meeting High Performance Computing for Computational Science, Toulouse, France, pg 591 – 599, <http://vecpar.fe.up.pt/>

7.

Paper proceeding Advances in Computer Science and Technology ACST 2008 2-4 April 2008 Langkawi Malaysia: PARALLEL ALGORITHMS FOR FULL CHIP TEMPERATURE BEHAVIOR USING HPC, Norma Alias, Zarith Safiza Binti Abdul Ghaffar

8.

Norma Alias, Siti Nur Hidayah Khalid, Nur farizan, Nurhafizah Hamzah, Paper Proceeding Pervasivehealth 2008, Tampera Finland. 27-3 Feb 2008, THE PARALLEL ALGORITHMS FOR HUMAN TUMOR GROWTH USING DISTRIBUTED MULTIPROCESSOR COMPUTER SYSTEMS.

9.

Mohd Salleh Sahimi\*, Noreliza Abu Mansor<sup>1</sup>, Ahmad Kamal Zulkifle<sup>1</sup>, Norma Alias<sup>2</sup> and Ishak Hashim<sup>3</sup>, TRIPLE SWEEP TWO-STAGE IADE METHOD FOR SOLVING THREE-DIMENSIONAL PARABOLIC PROBLEM. Proceedings of UNITEN SCOREd 2007, Vol 1, pp 489-497, Student Conference on Research and Development organized by Universiti Tenaga Nasional, 14-15 May 2007.

10.

Mohd Salleh Sahimi<sup>1</sup>, Noreliza Abu Mansor<sup>2</sup>, Ahmad Kamal Zulkifle<sup>3</sup>, “The Double Sweep Two-Stage IADE Methods to Solve a Two-Dimensional Parabolic Problem”, Proceedings of the Third International Conference on Research and Education in Mathematics, pp 121-127, Third International Conference on Research and Education in Mathematics (ICREM3) jointly organized by Institute for Mathematical Research Universiti Putra Malaysia (INSPEM) and The Malaysian Mathematical Sciences Society (PERSAMA), 10-12 April, 2007.

11.

Norma Alias, Pheng H.S. & Norfarizan Mohd Said, High Performance Simulation for Brain Tumors Growth Using Parabolic Equation on Heterogeneous Parallel Computer systems, Second Intern. Conf. on Modelling, Simulation and Applid Optimizing. 24-27 March 2007 The Petroleum Inst. Abu Dhabi UAE.

12.

Norma Alias, Norsarahida, Norhafizah, H. Norfarizan M.S, High Performance Computing for Temperature Prediction Based on Haterogenous Cluster of Workstations 4<sup>th</sup> Intern. Symposium on Mechatronics and Its Applications, 26-29 March 2007, Sharjah University UAE.

13.

<sup>(1)</sup>Norma Alias, <sup>(1)</sup>Norhafizah Hamzah, <sup>(1)</sup>Norsarahaida Saidina Amin, <sup>(2)</sup>Noreliza Abu Mansor, PARALLEL PERFORMANCE OF HOMOGENEOUS AND HETEROGENEOUS DISTRIBUTED MULTIPROCESSOR ARCHITECTURES, MSN 2007.

14.

Bukhari Manshoor, Mat Nawi Wan Hassan, Norma Alias. Regional Seminar on Computational & Experimental Mechanics (CEM) 2007 .In Conjunction with Regional Conference on Engineering , Mathematics, Mechanics, Manufacturing and Architecture (EM<sup>3</sup>ARC) Title CEM07/022: INCOMPRESSIBLE FLUID FLOW AND ENERGY EQUATIONS SIMULATION ON DISTRIBUTED PARALLEL COMPUTER SYSTEMS.

15.

<sup>1</sup>Norma Alias\*, <sup>2</sup>Fatimah , <sup>1</sup> Nurul Ain Zhafarina Muhamad, <sup>1</sup> Norhafiza Hamzah, THE PARALLEL AGE METHOD FOR SOLVING INCOMPLETE BLOW-UP PROBLEM USING HETEROGENEOUS MULTIPROCESSOR SYSTEMS, 2<sup>nd</sup> International Conference on Mathematical Sciences 2007 (ICoMS 2007)

---

Universiti Teknologi Malaysia.

16.

Norma Alias, Nazeeruddin Yaacob, Mohamed Salleh Sahimi, Abdul Rahman Abdullah. Parallel Application Software Using Preconditioning Routine on High Performance Computing. Symposium Kebangsaan Sains Matematik ke 13. Universiti Utara Malaysia. 31 Mei -2 Jun 2005, jilid 2, 859-867.

17.

Norma Alias, Nazeeruddin Yaacob, Mohamed Salleh Sahimi, Abdul Rahman Abdullah. EPCL: Parallel Software for visualization of temperature behavior using web services and distributed computing system. International Conference On Product Design and Development, Universiti Malaysia Sabah. 20-21 Disember 2004.

18.

Halijah Osman, Norma Alias, Baharom Sanugi, The Parallelization of Charlie's Methods on Linear Heat Conduction Equation using Homogeneous Cluster Computing. 12th Mathematics Science National Symposium, 23-24 Dec 2004, International Islamic University Malaysia.

19.

Norma Alias, Nazeeruddin Yaacob, Mohamed Salleh Sahimi, Abdul Rahman Abdullah. (2005) Pengkomputeran Selari dalam industri. Seminar Matematik dan Masyarakat, Kustem K. Terengganu Prosiding: Page 87-96

20.

Norma Alias, Maznah Ali. (2005) Wanita IT dalam era Globalisasi. International Conference Muslim Women, Sofitel Skudai Johor

21.

C.H. Yan, N. Alias, A. K. Ariffin & M. S. Sahimi, High Performance Computing for 2D on PC Cluster System Using Message Passing Environment, International Conference of Science & Engineering Computing, Singapore, 30 June – 2 July 2004.

22.

Osman, Halijah and Alias, Norma and Sanugi, Bahrom (2005) High Performance Computing Of Explicit Schemes For Electrofusion Jointing Process Based On Message-Passing Paradigm. Project Report. Universiti Teknologi Malaysia.

23.

Norma Alias, M. Salleh Sahimi Mohamed dan A. Rahman Abdullah, Ketersauran Pembelajaran dan Pengajaran Pengaturcaraan Mesin Selari Ingatan Maya di Institut Pengajian Tinggi Awam Malaysia, Prosiding Bengkel Sains Pengaturcaraan : Pembelajaran & Pengajaran Pengaturcaraan di Malaysia .

24.

Alias, N., Sahimi, M.S. & Abdullah, A.R. 2003. Parallel Strategies in Solving One Space Dimension Heat Conductor Equation on A Distributed Parallel Computer Systems. Proc. of The 3rd International Conference Advances in Strategic Technologies, pp 639- 645, ISBN: 983-2446-85-6, Organised by The Faculty of Engineering, UKM and MIGHT, Renaissance Kuala Lumpur Hotel, Date 12-14 August 2003.

25.

Alias, Norma (2004) Parallel Strategies On A Distributed Parallel Computer System. Project Report. Universiti Teknologi Malaysia. (Unpublished)

26.

Alias, N., Sahimi, M.S. & Abdullah, A.R. 2003. Parallel Strategies For The Iterative Alternating Decomposition Explicit Interpolation-Conjugate Gradient Method In solving Heat Conductor Equation On A Distributed Parallel Computer Systems. Proc. of The 3rd International Conference On Numerical Analysis in Engineering 2003 at Batam Island, Indonesia 13-15 Mac 2003. 3: 31-38.

27.

Alias, N., Sahimi, M.S. & Abdullah, A.R. Hanawi, S.A., Zuraini, S. 2003. The Development and Parallel Performance Of A Distributed memory Machine Using PCs Based. International Symposium on Information Technology. ITSIm2003. P41: 365-373, ISBN: 983-2975-01-8, 30 Sept-2 Oct. 2003.

---

28.

Yan, C. H., Alias, N., Ariffin A.K., Sahimi, M.S. On Communication Issue For Two Dimensional Solutions Using A Cluster Of Workstations. Proceeding International Symposium on Information Technology. ITSIm2003, P34: 305-311, ISBN: 983-2975-01-8, 30 Sept-2 Oct. 2003

29.

Alias, N., Sahimi, M.S. & Abdullah, A.R Hanawi, S.A., 2003. On Some Red Black Strategies Of Parabolic Partial Differential Equation Using PVM. Pros. Simposium Kebangsaan Sains Matematik ke-11, 22-24 Disember 2003 at Hotel Promenade, Kota Kinabalu, Sabah, 139-149.

30.

Sahimi, M.S. & Alias, N., 2002. The Iterative Alternating Decomposition Explicit Method (IADE) for Parabolic Problems With Cylindrical And Spherical Symmetry. Pros. Simposium Kebangsaan Sains Matematik ke-10, 23-24 Disember 2002 at Hotel Puteri Pan Pacific Johor Bahru, 284--288.

31.

Norma Alias, Mohd Salleh Sahimi, Abdul Rahman Abdullah, 2002. Parallel Algorithms On Some Numerical Techniques Using PVM Platform On A Cluster Of Workstations, Multimedia for the Advancement of Mathematics ATCM 2002, Proceeding of the 7th Asian Technology Conference in Mathematics 2002, 17th-21st December 2002 at Multimedia University Melaka, pg 390-399.

32.

Mohd Salleh Sahimi, Norma Alias, Elankovan Sundararajan, 2001. Some Parallel Strategies on Alternating Group Explicit using PVM, Prosiding Simposium Kebangsaan Sains Matematik ke-9, 18-20 Julai 2001, Pemampatan Daya Saing Matematik dalam Era Inovasi, Anjuran Pusat Pengajian Sains Matematik, UKM Persatuan Sains Matematik Malaysia (PERSAMA), 294-302.

33.

Norma Alias, Mohd Salleh Sahimi, Abdul Rahman Abdullah, 2004. A New Nonlinear differential Equation for Describing Ion-Acoustic Waves in Plasma, Proceedings of the Internasional Conference on Mathematics and Its Applications (ICMA-2004), April 5-7 2004, State of Kuwait, 13-26.

34.

Norma Alias, Mohd Salleh Sahimi, Abdul Rahman Abdullah, 2003. Explicit Block Schemes Of Parabolic Partial Differential Equations On A Cluster Of Workstations, ICREM 2003 International Conference on research and education in Mathematics 2-4 April 2003, Equatorial Hotel Bandar Baru Bangi Malaysia, A2-4.

35.

Norma Alias, Mohd Salleh Sahimi, Abdul Rahman Abdullah, 2004. Communications issues for Parallel Alternating Group Explici Methods on a Distributed Memory Architecture, Proceeding of The Second International Conference on Artificial Intelligence in Engineering & Technology, 3-5 August 2004, at Kota Kinabalu Sabah, 840-844.

36.

Alias, N., Sahimi, M.S. & Abdullah, A.R. 2002. Parallel Algorithms On Some Numerical Techniques Using PVM Platform On A Cluster Of Workstations. Proc. of The 7th Asian Technology Conference in Mathematics. 7: 390-97.

37.

Rio, H.S., Alias, N. & Ali., N. H. M., 2003. On Group Iterative Simulation on 2-Space Dimension Parabolic Partial Differential Equation. The 6th Hellenic European Conference on Computer Mathematic and its Applications (HERCMA 2003). Athens University of Economic and Bisiness, Athens, Hellas. 25/9-27/9/2003.

38.

Alias, N., Sahimi, M.S. & Abdullah, A.R. 2003. Communication Issues For Parallel Alternating Group Explicit Methods On A Distributed Memory Architecture. Proc. of The Conference on Advances in Theoretical Sciences. CD FORMAT.

39.

Alias, N., Sahimi, M.S. & Abdullah, A.R. 2003. Explicit Block Schemes Of Parabolic Partial Differential

---

- Equations On A Cluster Of Workstations. Proc. of International Conference On Research And Education In Mathematics. CD FORMAT.
- 40.
- Alias, N. & Abdullah, A.R. 2002. Iterative Parallel Algorithms for Solving Some Linear System of Equations on Parallel Virtual Machine. Seminar Siswazah FTSM Universiti Kebangsaan Malaysia, 147-161.
- 41.
- Sahimi, M. S. & Alias, N. 2001. Some Strategies on Iterative alternationg Decompositon Explicit method using Parallel Virtual Machine (PVM). Pros. Simposium Kebangsaan Sains Matematik ke-9. : 284--288.
- 42.
- Sahimi, M.S. & Alias, N. 2000. The AGEB Algorithm for solving the Heat Equation in Two Space Dimensions and Its Parallelization Using a Cluster of Workstations. Pros. of International Conference Technology and Multimedea, 49-54
- 43.
- Norma Alias, Mohd Salleh Sahimi, Abdul Rahman Abdullah, CATS 2003. Communications issues for Parallel Alternating Group Explici Methods on a Distributed Memory Architecture, Advance technology Congress 2003, 20-21 May 2003, at Putrajaya marroott Hotel, IOI Resort, 150-158.
- 44.
- Alias, N., Sahimi, M.S. & Abdullah, A.R. 2003. A New Iterative Alternating Decomposition Explicit Method And Its Parallel Strategies On A Distributed Memory Machines. Proc. of The Regional Conference on Integrating Technology in the Mathematical Sciences.
- 45.
- Alias, N., Sahimi, M.S. & Abdullah, A.R. 2003. Parallel Alternating Group Explicit Methods In Solving 2 Space Dimensional Heat Equation On A Distributed Memory Machines. Cd format.
- 46.
- Memory Machines. Proc. of Regional Seminar on Computational Mechanics and Numerical Analysis, (CMNA). 3:CD FORMAT.
- 47.
- Alias, N., Sahimi, M.S. & Abdullah, A.R 2003. Pengkomputeran Selari Berkelompok Berasaskan PC: Kepantasan, Kecekapan dan Keberkesanannya. Seminar Kebangsaan Sains Pemutusan 2003. Anjuran Sekolah Sains Kuantitatif , UUM, Langkawi Seaview Hotel, 15-16 Oktober 2003.
- 48.
- Alias, N., Sahimi, M.S. & Abdullah, A.R 2003. Toward Teaching and Learning Parallel Virtual Machine on Distributed Parallel Computer Systems at Higher Education Institution . Bengkel Pengajaran dan Pembelajaran Pangaturcaraan, ATUR03, anjuran Jabatan Sains Komputer, FTSM, UKM. 27 Ogos 2003, Cyberview, Putrajaya.
- 49.
- Alias, N., Sahimi, M.S. & Abdullah, A.R. 2002. The Parallel Implementation of IADE and AGE Algorithms Using Parallel Virtual Machine On A Distributed Parallel Systems. Proc. of The Conference On Information Technology Research & Application. 1: CD Format.
- 50.
- Alias, N., Maidin, S., Hamid H.A., Yan C.H., Ariffin A.K., & Sahimi, M.S. 2004. A web Based Review For High Performance Computational Library in Solving Multidimensional Parabolic Equations, Simposium Kebangsaan Sains Matematik Semalaysia Ke-12, UIA , 23-24 Disember 2004.
- 51.
- Alias, N., Sahimi, M.S. & Abdullah, A.R. 2004. Efficient Parallel Implementation Of Ageb Algorithm In Solving 3 Space Dimensional Problem Using A Message Passing Environment On Cluster Systems, Seminar Mingguan Institut Penyelidikan Matematik (INSPERM) 30 Januari 2004, pg 1-8.
- 52.
- Norma Alias, Mohd Salleh Sahimi, Abdul Rahman Abdullah, 2004. PVM-based implementation of a new ADI Technique (IADEI) in Solving One Dimensional Parabolic Equation Using PC Cluster System. International
-



Conference On Mathematics and Its Application, ICMA, Kuwait University, 5-7 April 2004.

53.

Norma Alias, Mohd Salleh Sahimi, Abdul Rahman Abdullah, 2004. Communication issues for Parallel Alternating Group Explicit Methods on a Distributed Memory Architecture International Conference on Artificial Intelligence, University Malaysia Sabah, 3-5 Ogos 2004.

54.

Norma Alias, Mohd Salleh Sahimi, Abdul Rahman Abdullah, 2004. High Performance Computing for 2 Space Dimension Problems on PC Cluster System Using Message Passing Environment. International Conference on Scientific and Engineering Computation, Singapore, 30 Jun – 2 Julai 2004. CD format.

55.

Norma Alias, Mohd Salleh Sahimi, Abdul Rahman Abdullah, 2004. The Development and Implementation of Efficient Parallel Strategies on a Cluster System Using a Message-Passing Applications. Proceeding of the 7th International Conference on Work with Computing System, WWCS. Seminar Jabatan Matematik 14 Julai 2004, pg 869-873

56.

International Invention Industrial Design & Technology Exhibition ITEX, 20-22 Mei 2004. Title : High Performance Temperature Prediction for Multidimensional Manufacturing Using Low Cost Supercomputer. Pencapaian : Pingat Gangsa. Status : Inventor.

57.

Industrial Art and technology Exhibition. INATEX 6-8 Julai 2004. Title : High Performance Computational Library in Solving Multidimensional Heat Conduction Problems on a Distributed Parallel Computer System. Pencapaian : Pingat Emas, Status : Inventor.

58.

Norma Alias, Nazeeruddin Yaacob, Mohamed Salleh Sahimi, Abdul Rahman Abdullah. Parallel Distributed Memory Architectures for Industries.. Seminar Matematik dan Industri. Terengganu April 2005. CD format.

59.

Norma Alias. Parallel Application Software Using Preconditioning Routine on High Performance Computer. Seminar Kebangsaan Sains dan Matematik ke-xiii, UUM/PERSAMA/Kerajaan Negeri Kedah. CD Format.

60.

Norma Alias, Choy Hau Yan, Ahmad Kamal Ariffin dan Mohd Salleh Sahimi Mohamed. High Performance Computing for 2-Space Dimension problem on PC Cluster System Using Message Passing Environment. CD format.

61.

Norma Alias, Choy Hau Yan, Ahmad Kamal Ariffin, Helmi Abdul Hamid, Suhaimi Maidin dan Mohd Salleh Sahimi Mohamed. A Visual Simulation of Multidimensional Parabolic Equations on A Distributed Parallel Computer Systems. CD format.

62.

Zaleha Ismail, Norma Alias. Curriculum Design for Parallel Computing Course at Malaysia Higher Institutions. Seminar Kebangsaan Sains dan Matematik ke-xiii, UUM/PERSAMA/Kerajaan Negeri Kedah. CD Format.

63.

Norma Alias, Mohd Salleh Sahimi Mohamed, Abdul Rahman Abdullah dan Siti Aishah Hanawi. On Some Red Black Strategies of Parabolic Partial Differential Equation Using PVM. CD format.

64.

Norma Alias, Mohd Salleh Sahimi Mohamed, Abdul Rahman Abdullah dan Siti Aishah Hanawi. Some Parallel numerical Red black method For Solving Partial Differential Parabolic Equation Using PVM. CD format.

65.

Rio Hirowati Shariffudin, Norma Alias, Norhashidah Hj Mohd Ali. On Group Iterative Simulations on 2-space Dimension Parabolic partial Differential Equations. CD format.

66.

---

Norma Alias, Mohd Salleh Sahimi Mohamed, Abdul Rahman Abdullah EPCL: Parallel software for Visualization of Temperature Behavior using Web Services on Distributed Computing Systems. CD format. 67.

Norma Alias, Mohd Salleh Sahimi Mohamed, Abdul Rahman Abdullah EPCL: Parallel software for Visualization of Temperature Behavior using Web Services on Distributed Computing Systems. CD format. 68.

NORMA ALIAS, Zaleha Ismail, Mohd Khalid Kasmin The Mathematics Carnival: A Platform to Appreciate Mathematics, 25<sup>th</sup>-Dec 1<sup>st</sup> 2005, The Mathematics Education into the 21st Century Project Hotel Eden Garden, JB

69. Nazeeruddin Yaacob, Zaleha Ismail, Rose Ann Abd Rahim, Integration of Case Studies in Parallel Computing Courses for Postgraduate Students SKSM ke XIV, 6-8 Jun 06, PNB Darby Park KL. 70.

Norma Alias, The Development of a Distributedparallel Computer Second Intern. Conf. on Modelling, Simulation and applid Optimizing. 24-27 March 2007, The Petroleum Inst. Abu Dhabi UAE. 71.

<sup>1</sup>Norma Alias\*, <sup>1</sup>Tan Sui Chin, <sup>1</sup>Shalela Mohd Mahali, SOME NUMERICAL ALGORITHMS FOR PARALLEL MULTIGRID METHOD ON DISTRIBUTED PARALLEL COMPUTER SYSTEMS. 72.

PhD Proposal Pn Fatimah Sham, PARALLEL AND SEQUENCIAL SIMULATION OF AN ACTIVE THERMAL CONTROL SYSTEM (ATCS) PROTOTYPE FOR ELECTRONIC DEVICES, <sup>1</sup>Norma Alias\*, <sup>2</sup>Fatimah Sham Ismail , 73.

PhD Proposal Hanifah Sulaiman, HIGH PERFORMANCE VISUALIZATION FOR EARLY DETECTION OF BREAST CANCER USING DISTRIBUTED PARALLEL COMPUTER SYSTEMS, <sup>1</sup>Norma Alias\*, <sup>2</sup> Hanifah Sulaiman, Arsmah Ibrahim 74.

Norma Alias<sup>1</sup> , Shalela Mohd Mahali<sup>1</sup> , Tan Sui Chin<sup>1</sup> & Lee Siew Thong<sup>2</sup> ,Some parallelization techniques of QR factorization using Heterogeneous Cluster of WorkStations. 75.

Mohd Salleh Sahimi<sup>1</sup> , Noreliza Abu Mansor<sup>1</sup>, Ahmad Kamal Zulkifle<sup>1</sup> and Ishak Hashim<sup>2</sup> ,FOURTH ORDER ITERATIVE ALTERNATING DECOMPOSITION EXPLICIT METHOD ( IADE ) TO SOLVE THE HEAT EQUATION. 76.

Mohd Salleh Sahimi\* , Ahmad Kamal Zulkifle<sup>1</sup>, Norma Alias<sup>2</sup> Ishak Hashim, Amna Abdul Rahman<sup>3</sup>, CURING SIMULATION OF THERMOSET COMPOSITES USING TWO DIMENSIONAL AGE ALGORITHM. 77.

Norma Alias, Ali Hassan Mohamed Murid, Nurul Ain Zhafarina Muhamad, Zarith Safiza Abd. Ghaffar, Noriza Satam, THERMAL SIMULATION ALGORITHM FOR TEMPERATURE DISTRIBUTION OF MULTILAYERED FULL-CHIP STRUCTURE USING GREEN FUNCTION, Simposium Kebangsaan Sains dan Matematik ke-16, <http://www.umat.edu.my> 78.

The Parallelism algorithm of Human Tumors Growth using High Performance Computing, Norma Alias, Norfarizan Mohd Said, Siti Norhidayah Khalid, Dolly Sin, Phang Tau Ing In Proc. of 2nd Inter. Conf. on Pervasive Computing Technologies for Healthcare 2008. Tempere Finland, 30 jan- 1 Feb 2008 79.

The Visualization of Three Dimensional Brain Tumors` Growth on Distributed Parallel Computer Systems Journal of Applied Sciences SciAlert.net (online)

---

80

EARLY DETECTION OF BREAST CANCER USING WAVE ELLIPTIC EQUATION WITH HIGH PERFORMANCE COMPUTING Norma Alias, Nur Syazana Rosly, Noriza Satam, Zarith Safiza Abdul Ghaffar, Rajibul Islam Proceedings of 2008 Student Conference on Research and Development (SCOREd 2008),

81

Temperature Behavior Visualization on Rubber Material Involving Phase Change Simulation Norma Alias, Nazeeruddin Yaacob, Mohamed Othman, Roziha Darwis, Nurashikin Abdullah, Teh Yuan Ying. Regional Annual Fundamental Science Symposium 2010 (RAFSS 2010)

82

Thermal Simulation Algorithm For Temperature Distribution Of Multilayered Full-Chip Structure Using Green Function- 2008, Norma Alias, Noriza Satam, Zarith Safiza, Fatimah Sham Ismail, Ali Hassan Mohamed Murid. Proc. Simposium Kebangsaan Sains Matematik ke -16

83

GRID PORTAL TECHNOLOGY FOR WEB BASED EDUCATION OF PARALLEL COMPUTING COURSES, APPLICATIONS AND RESEARCHES. Accepted for the International Web-based Education conference 2009, Phuket Thailand Paper Number: Mar. 16-18, 2009, pp. 319-324. ISBN: 978-0-88986-789-5 ID: 644-082

84.

Parallel Iterative Block and Direct Block Methods for 2-Space Dimension Problems on Distributed Memory Architecture Accepted for the 6th International Conference on IT in Asia 2009 (CITA'09), Sarawak malaysia

85

FINITE ELEMENT OF CRACK PROPAGATION DISCRETIZATION AND ITS PARALLELIZATION ON DISTRIBUTED PARALLEL COMPUTING SYSTEMS" Accepted for Asian Mathematics Conference 2009, Kuala Lumpur Malaysia

86.

A DYNAMIC PDE SOLVER FOR BREASTS' CANCEROUS CELL VISUALIZATION ON DISTRIBUTED PARALLEL COMPUTING SYSTEMS. Accepted for the Advances in Computer Science and Engineering ~ACSE 2009~ Phuket Thailand Paper Number: Mar. 16-18, 2009, pp. 138-143. ISBN: 978-0-88986-790-1 ID: 646-073 (scopus and index publication)

87.

COMMUNICATION COST ON HIGH PERFORMANCE COMPUTING OF THERMAL CONTROL SIMULATION FOR MULTILAYER FULL-CHIP DESIGN, in Proc. of The Second International Conference on Control, Instrumentation and Mechatronic Engineering (CIM09), Malacca, Malaysia, June 2-3,, Melaka Malaysia pp. 517-521, 2009.

88.

Communication and Computational Cost on Parallel Algorithm of PDE Elliptic Type in proc. Second International Conference and Workshops on Basic and Applied Sciences (2nd ICOWOBAS) and Regional Annual Fundamental Science Seminar 2009 (ICORAFSS 2009), 2-4 Jun 2009, pp 75-80.

89

The Implementation of Multigrid Method for Solving Heat Equation of Thermal control system on printed circuit board Norma Alias, Zarith Safiza A.G., Norhafiza H., Noriza S., Ali Hassan M.M. Proceeding of ICORAFSS 2009 2-4 June 2009, Johor Bahru, Malaysia pp. 26-28.

90.

Parallel Iterative Block and Direct Block Methods for 2-Space Dimension Problems on Distributed Memory Architecture in Proc. of 6<sup>th</sup> International Conference of Information Technology in Asia 2009 (CITA'09), Sarawak, Malaysia, July 6-9, 2009, pp. 170-174.

91

---

Mathematical Simulation for 3-Dimensional Temperature Visualization on Open Source-based Grid Computing Platform International Conference on Computer Research Research and Development (ICCRD 2009), Perth Australia, 10-12 July 2009 World Academic Union, pp. 553-559. ISBN: 978-1-84626-018-6, (Scopus & Index Publication )

92

Numerical Methods for Solving Temperature and Mass Transfer Simulation on Dehydration Process of Tropical Fruits In proc. of Simposium Kebangsaan Sains dan Matematik 17, 15-17 Disember 2009, Melaka, Malaysia (accepted to be presented)

93

PARALLEL ALGORITHM OF FINITE ELEMENT DISCRETIZATION OF CRACK PROPAGATION ON DISTRIBUTED PARALLEL COMPUTING SYSTEM, Norma Alias, Md. Rajibul Islam, Tan Yin San, Roziha Darwis, 5TH Asian Mathematical Conference Putra World Trade Centre, Kuala Lumpur, Malaysia, 22 – 26 JUNE 2009

94

High Performance Visualization of Human Tumors Growth Software, In Proc. of 8th Inter. Meeting High Performance Computing for Computational Science (VECPAR'08) ,pp. 591-599, Book Series: Lecture Notes in Computer Science Publisher : Springer Berlin / Heidelberg ISSN : 0302-9743 (Print) 1611-3349 (Online) Volume : 5336/2008 DOI: 10.1007/978-3-540-92859-1 Copyright : 2008 ISBN: 978-3-540-92858-4 (index journal and scopus)

95

EARLY DETECTION OF BREAST CANCER USING WAVE ELLIPTIC EQUATION WITH HIGH PERFORMANCE COMPUTING Proceedings of 2008 Student Conference on Research and Development (SCOREd 2008), pp. 90-1 to 90-4. IEEE catalog number: CFP08526-CDR ISBN : 978-1-4244-2869-4 Library of Congress: 2008907651

96

The Visualization of Three Dimensional Brain Tumors` Growth on Distributed Parallel Computer Systems, Journal of Applied Sciences. Asian Network for Scientific Information (ANSINET). Vol. 9(3), pp. 505-512, 2009. ISSN: 1812-5654 (index journal and scopus)

97

A Dynamic PDE Solver for Breasts Cancerous Cell Visualization on Distributed Parallel Computing Systems, Norma Alias, Md. Rajibul Islam, Tan Yin San, Roziha Darwis , In Proc. of The 8th International Conference on Advances in Computer Science and Engineering (ACSE 2009), Phuket, Thailand, Mar. 16-18, 2009, pp. 138-143. ISBN: 978-0-88986-790-1 ID: 646-073 (scopus)

98

Grid Portal Technology for Web based Education of Parallel Computing Courses, Applications and Researches, In Proc. of The 8th International Conference on Web-based Education (WBE 2009), Phuket, Thailand, Mar. 16-18, 2009, pp. 319-324. ISBN: 978-0-88986-789-5 ID: 644-082 (scopus)

99

High Performance Computing of Thermal Control Simulation for Multilayer Full-chip Design, in Proc. of The Second International Conference on Control, Instrumentation and Mechatronic Engineering (CIM09), Malacca, Malaysia, June 2-3, pp. 517-521, 2009. These papers has been selected to publish in a International Journal of Computer Sciences and Engineering Systems published by SerialsPublication, India (index journal and scopus)

100

Communication and Computational Cost on Parallel Algorithm of PDE Elliptic , Type in proc. Second International Conference and Workshops on Basic and Applied Sciences (2<sup>nd</sup> ICOWOBAS) and Regional Annual Fundamental Science Seminar 2009 (ICORAFSS 2009), 2-4 Jun 2009, pp 75-80.

101

The Implementation of Multigrid Method for Solving Heat Equation of Thermal control system on printed

---

circuit board Norma Alias, Zarith Safiza A.G., Norhafiza H., Noriza S., Ali Hassan M.M. Proceeding of ICORAFSS 2009 2-4 June 2009, Johor Bahru, Malaysia , pp. 26-28.

102

Parallel Iterative Block and Direct Block Methods for 2- Space Dimension Problems on Distributed Memory Architecture in Proc. of 6th International Conference of Information Technology in Asia 2009 (CITA'09), Sarawak, Malaysia, July 6-9, 2009, pp. 170-174.

103

Mathematical Simulation for 3-Dimensional Temperature Visualization on Open Source-based Grid Computing Platform , International Conference on Computer Research Research and Development (ICCRD 2009), Perth Australia,10-12 July 2009, World Academic Union, pp. 553-559. ISBN: 978-1-84626-018-6

104

Parallelization of Temperature Distribution Simulations for Semiconductor and PolymerComposite Material on Distributed Memory Architecture, Proc. of The 10th International Conference, PaCT 2009, Novosibirsk, Russia, August/ September 2009 .Lecture Notes in Computer Science,ISSN 0302-9743 pp. 392-398 (index journal and scopus)

105

The Granularity Analysis of parallel IADE and AGE Families for Solving Multidimensional Parabolic Type Problems (In reviewing process for Journal Applied Mathematics and Computation) (index journal and impact factor )

106

Numerical Methods for Solving Temperature and Mass Transfer Simulation onDehydration Process of Tropical Fruits In proc. of Simposium Kebangsaan Sains dan Matematik 17, 15-17 Disember 2009, Melaka, Malaysia (accepted to be presented)

107

SOME PARALLEL NUMERICAL METHOD IN SOLVING THE PDE ICCET 2010 paper\_id\_G387 The 2nd International Conference on Computer Engineering and Technology (ICCET 2010) April 16 - 18, 2010, Chengdu, Sichuan, China, vol 2 pp 391-396, ISBN: 978-1-424416350-3

108

Parallelization of iterative and direct schemes for kellerbox method on distributed memory platform Norma Alias, Norhafiza Hamzah, Norsarahaida S.Amin, Noriza Satam, Roziha Darwis,Zarith Safiza Abdul Ghaffar, ICCET2010 paper \_id-G407, The 2nd International Conference on Computer Engineering andTechnology (ICCET 2010) April 16 - 18, 2010, Chengdu, Sichuan, China, vol 2 pp 489-489, ISBN: 978-1-424416350-3

109

Implementation of Parallel Computational tools for The Curing Simulation of Thermoset Composites using the Double Sweep Two-Stage AGE Algorithm , Amna Abdurrahman,Ahmad Kamal b.Zulkifle, Norma Alias, Ishak Hashim Malaysia Journal of Science, 2007, Jilid 26, 5-15

110

3D Parallel Algorithm Parabolic Equation for Simulation of The Laser Glass Cutting Using Parallel Computing Platform Norma Alias, Rosdiana Shahril,Md.Rajibul Islam, Noriza Satam, Roziha Darwis, Pacific Rim Applications and Grid Middleware Assembly (PRAGMA) and 3rd PRAGMA Institute , 22-25 Oct 2008, USM

111

Parallel System for Abnormal Cell Growth Prediction based on Fast Numerical Simulation Norma Alias, Md. Rajibul Islam, Rosdiana Shahril, Hafizah Hamzah, Noriza Satam, Zarith Safiza, Roziha Darwis, Eliana Ludin and Masrin Azami The 2nd Russia-Taiwan Symposium on Methods and Tools of Parallel Programming Multicomputers (MTPP 2010), LNCS series. (Indexed by EI, DBLP, INSPEC, Thomson)

112

SEMI-IMPLICIT METHOD OF FAST ACTIVE CONTOUR MODELS FOR MEDICAL IMAGE

---

PROCESSING Norma Alias , Rosdiana shahril, Regional Annual Fundamental Science Symposium 2010 (RAFSS 2010)

113

ELLIPTIC-PARABOLIC EQUATION OF INSTANT CONTROL PRESSURE DROP TECHNIQUE FOR DEHYDRATION PROCESS Norma Alias, Hafizah Hamzah<sup>3</sup>, Noriza Satam<sup>3</sup>, Zarith Safiza<sup>3</sup>, Roziha Darwis<sup>3</sup>, Eliana Ludin<sup>1</sup> and Masrin Azami<sup>1</sup> Regional Annual Fundamental Science Symposium 2010 (RAFSS 2010)

114

Some Parallelization Schemes for Solving Boundary Layer Problem on Heterogeneous Computer System, 9<sup>th</sup> International Meeting on High Performace Computing for Computational Science, Vecpar 2010, Springer Series Lecture Notes in Computer Science, VECPAR'10 | Berkeley, CA (USA) | June 22-25, 2010 published by Springer (accepted for publish)

115

Visualizing and Monitoring the Nano-Cell of Tumor Growth using Grid Computing Platform, Norma Alias, Zarith Safiza Abd. Ghaffar, Noriza Satam, Roziha Darwis, Norhafiza Hamzah , 3rd Thailand Nanotechnology Conference to be held in AIT (Bangkok), Thailand from 21 - 22 December, 2009

116

The Architecture of Scientific Computing Library Portal on Sequential Algorithm Based on Partial Differential Equation, Othman, M. S., Yusuf, L. M., Alias, N. Basitt, U. N. A. International Symposium on Information Technology 2010 (ITSim 2010), ITSIM 2010. Kuala Lumpur, from 15 to 17 June 2010, Accepted (scopus)

117

Granularity Analysis of Multidimensional Parabolic Equation on Grid Computing Platform, Norma Alias, GridDotMy 2009 conference, MYREN, University Malaysia Terengganu.

118

Characteristics Determination on Scientific Computing Library Portal, Othman, M. S., Yusuf, L. M., Alias, N. Basitt, U. N. A. International Conference on Computer and Communication Engineering (ICCCE 2010), 11-13 May 2010, Kuala Lumpur, Malaysia,

119

Dayang hjh. Tiawa Awang hj. Hamid, Norma Alias, Md. Rajibul Islam, “A Distributed Learning & Teaching Environment across Institutions base on Advanced Grid Portal Technology”, in Proc. of the *3rd Regional Conference on Engineering Education & Research in Higher Education (RCEERHED 2010)*, Kuching, Sarawak, **Malaysia**, June 7-9, 2010, pp. xx-xx

120

Norma Alias, Zarith Safiza Abd. Ghaffar, Noriza Satam, Roziha Darwis, Norhafiza Hamzah, Md. Rajibul Islam, Paper ID :

Paper Title : Some Parallel Numerical Methods in Solving Partial Differential Equations, 2<sup>nd</sup> ICCET 2010 April 16 - 18, 2010, Chengdu, Sichuan, China

121

Paper #:10-04-10-01

Paper title: An Improved Parallel AGE Method to Solve Incomplete Blow-up Problem through High

---

## Performance Computing System

Authors: Norma Alias, Md. Rajibul Islam, Nurul Ain Zhafarina Muhamad, Noriza Satam and Norhafiza Hamzah, Sept 2010, journal website [www.ijopcm.org](http://www.ijopcm.org)

122

Norma Alias, Che Rahim Che Teh, Md. Rajibul Islam, Hafiza Farahain, ?Halal Food Industries Based On Dehydration Of DIC Technique?, in Proc. of *The Regional Annual Fundamental Science Symposium 2010 (RAFSS 2010)*, Kuala Lumpur, Malaysia, June 08-09, 2010, vol. 0, pp. 00-00. [In press].

123

Characteristics Determination on Scientific Computing Library Portal, Othman M S, Yusuf L. M , Basitt, U.N.A, Norma Alias, International Conference on Computer and Communication Engineering (ICCCE 2010) 11-13 may 2010 Kuala Lumpur Malaysia.

124

Modelling and simulation of nanoscale temperature behavior for multilayer full chip system, Norma Alias, Noriza Satam, International Conference on Enabling Science and nanotechnology (ESciNano 2010), ID 130

## Book/Monograph/Technical Report/Audio Visual

### Local Book

Pengaturcaraan selari Terbitan UTM 2010

Parallel Computing (in Progress)

### Book of Chapter

1. Tajuk : Advances in Computational and Numerical Simulations

Penerbit : PENERBIT UTM

Tarikh penerbitan : 20 Mac 2009

2. Tajuk : ADVANCES FUNDAMENTAL SCIENCES

Penerbit : PENERBIT UTM

Tarikh penerbitan : 20 April 2009

3. Tajuk : ADVANCES IN BIOINFORMATICS AND CHEMINFORMATICS

Penerbit : PENERBIT UTM

Tarikh penerbitan : 20 Mac 2009

4. Tajuk : ADVANCES IN BIOINFORMATICS AND CHEMINFORMATICS

Penerbit : PENERBIT UTM

Tarikh penerbitan : 20 Mac 2009

---

## International Book

5. IGI Global Inc. (USA) book publication Gridportal in education and E-learning Collaborative Learning 2.0 Open Educational Resources

6. Norma Alias and Md. Rajibul Islam, "Finite Element Discretization of Crack Propagation on Parallel Computing: Complexity and Parallel Algorithms with Source Code, Feature Extraction and Template Protection", VDM Verlag Dr. Müller Aktiengesellschaft & Co. KG, Germany, 2010. ISBN: 978-3-639-28599-4. [In Press]

7. Norma Alias and Md. Rajibul Islam, "Numerical Solutions of Brain Tumor and Breast Cancer Growth Based On Multi-Dimensional Partial Differential Equations (PDE)", LAP LAMBERT Academic Publishing AG & Co. KG, Germany, 2010. ISBN: 978-3-8383-9699-6. [In Press]

## Technical Report

1. A New 3-Stage Fourth Order Non-linear Pseudo Runge-Kutta Method Based on Arithmetic mean For Numerical Solutions of Stiff Ordinary Differential Equation
2. Grid Computing Platform Development: Rock Cluster Installation
3. SOME NUMERICAL METHODS OF HUMAN TUMOR GROWTH ON PARALLEL COMPUTING PLATFORM
4. PARALLELIZATION OF WAVE ELLIPTIC EQUATION FOR EARLY DETECTION OF BREAST CANCER USING PARALLEL COMPUTER SYSTEMS
5. ALTERNATING GROUP EXPLICIT METHOD ON QUASILINEAR HEAT EQUATION OF INCOMPLETE BLOW-UP PROBLEM USING DISTRIBUTED PARALLEL COMPUTER SYSTEMS

## Audio Visual

1. RAFSS 2010: Montage for Open & Close Ceremony
  2. ICOWOBASS 2009: Montage for Close Ceremony and Dinner
  3. RAFSS 2008: Montage for Open, Close & Dinner Ceremony
  4. RAFSS 2007: Montage for Open, Close & Dinner Ceremony
  5. ICORAFSS 2006: Montage Close Ceremony
  6. Video for IIS in Brief 2008-2009
-



---

## Medal and Award on the Innovation, Invention and Product Development

---

1. Excerlance Services Award from Universiti Teknologi Malaysia 1995
2. Expertise field of Sciences and Technology Encyclopedia award
3. Potential Researcher rewards 2005
4. The Scientices award 2005
5. Pesama Thesis of the year 2006
6. Bronze Medal ITEX 2004 (International)
7. Gold Medal INATEX (UTM) 2004
8. Silver Medal R&D IPTA Expo 2005 (National)
9. Bronze Medal SIFF Seoul International Invention Fair 2004 (International)
10. Top 30 innovation researchers in UTM 2007
11. Head of the The Longest Malaysia Flag Project (Malaysia Book Record 2000)
12. Bronze Medal Malaysia TECHNOLOGY INNOVATION & INVENTION EXPO 2008
13. Silver Medal INATEX (UTM) 2008
14. Silver Medal PECIPTA 2009 (Best of the Best Award)
15. Silver Medal PECIPTA 2009 (New Product Category)
16. Researcher award, Science Faculty, UTM 2008

### **Product Patent**

Patent 2009: A METHOD FOR PREDICTING HUMAN TUMOUR GROWTH Monitoring (PT/3288/UTM/09 )

### **Copyright**

Copyright@<2009> UTM- All Right Reserve  
Real Time Brain Tumor Growth Predictor on Grid Computing

Copyright@<2008> UTM- All Right Reserve

---

**Completed Work and Current Research Project**

---

1. Project leader (E-Science) Dr Norma Alias  
79217- High performance Temperature Prediction for Electronic System Using a Distributed Parallel Computer Systems  
RM 130800.00
2. Project Leader (E-Science) Dr Norma Alias  
79219- High Performance Heat Transfer Visualization involving Phase Change Simulation for rubber manufacturing Industry  
RM 129600.00
3. Project Leader (FRGS) Dr Norma Alias  
Numerical Solutions of Brain Tumor and Breast Cancer Growth Based on Multidimensional PDE  
Vote Number 78075  
RM 40000.00
4. Project Leader (FRGS) Dr Norma Alias  
  
Title: The Effect of Simulated Microgravity on Molecular Cell Structure of Human Tumor Growth using Hybrid Computational Platform  
Vote number:78364  
RM 24200.00
5. Researcher Dr Norma Alias  
Title: Implementation Of Parallel Computational Tools For The Simulation Of The Manufacture Of Composite  
Grant No. : 04-02-02-0009-EA009  
Project Leader: Dr Ahmad kamal Zulkifle (UNITEN)
6. Researcher Dr Norma Alias  
FRGS 2008 Title: New Numerical Method for Sliff Delay Differential Equations  
Project Leader: PM Dr Nazeeruddin Yaacob  
RM 97000.00
7. Researcher  
FRGS 2008 Title: Diffusion Model of Isothermal Evaporation Using Mobile Computing in Drying Food Product  
Project Leader: Che Rahim Che The  
Vote number : 78363  
RM 62000.00
8. Researcher Dr Norma Alias  
FRGS 2008 Title: Parallel Neural Network for Temperature Prediction of Electronic Systems  
Project Leader: Dr. Mohd Shahizan Othman  
RM 55000.00

- 
9. Researcher Dr Norma Alias  
FRGS 2007 Title: PARALLEL MODELLING AND SIMULATION OF REAL TIME ACTIVE THERMAL CONTROL PROCESS (*ATCP*)  
Project Leader: Fatimah Sham Ismail  
Grant No. (vote): 78214  
RM 72000.00
- 10 Researcher Dr Norma Alias  
Saga 73702 Title: Mathematical Modeling of Low-Gravity Fluid Flows and Heat Transfer  
Project Leader: Prof Dr. Norsarahaida Saidina Amin  
RM 130000.00
11. Researcher Dr Norma Alias  
FRGS 2007 Title: algorithm of the Effect on Free Convection Adjacent to a Stretching Sheet  
Grant No. (vote): 78077  
RM 70000.00
- 12 Researcher Dr Norma Alias  
FRGS 1999 Title:- Muamalat Banking in Malaysia Islamic Bank Vote Number 71189
- 13 Researcher Dr Norma Alias  
  
FRGS 2006 Title: High Performance Computing of Explicit Schemes for Electrofusion Joining Process Based on Message-Passing Paradigm
- 14 Researcher Dr Norma Alias  
i. Project IRPA  
Grant No (vot): 09-02-02-0008  
  
ii. Project IRPA  
Grant No (vot): 04-02-02-0009-EA0009  
  
iii. Project IRPA  
Grant No (vot): 04-02-0009-EA009
15. Researcher Dr Norma Alias  
UTM RESEARCH VOTE NO: 77525  
TITLE: AUTHORIZING ACTIVITIES ENVIRONMENT THROUGH GRID PORTAL TECHNOLOGY  
RM30,000
16. Researcher Dr Norma Alias  
E-science Fund  
Title: Bio-MEMS (Micro-Electro-Mechanical Systems) Mass Sensor

- 
17. Project leader : Dr Norma Alias  
E-science Vote Number : 79402,( 01-01-06-SF0731)  
Title: Computational model on Muscle Therapy for Human body using Grid Computing  
Grant : RM 131,200.00,  
duration : Feb 2010 - July 2011
18. Researcher  
FRGS/1/10/TK/UTM/02/60  
TITLE: Modelling and Simulation of Nanoscale Temperature Behaviour for Laser Glass Interaction using  
Multicore Programming,  
Project Leader: Dr. Mohd Shahizan Othman  
Grant : 43,200.00  
duration : Feb 2010 - July 2011
19. FRGS/1/10/SG/UTM/03/19(TK),  
TITLE: PARALLEL ALGORITHMS OF INSTANTANEOUS CONTROLLED PRESSURE DROP  
TECHNIQUE FOR DEHYDRATION PROCESS ON GRID COMPUTING PLATFORM,  
Project Leader: NUR AMINAH MAHMUD,  
Grant : 24,000.00, duration : Feb 2010 - July 2011
20. FRGS/1/10/SG/UTM/02/22 (ST)  
TITLE: 3D PARALLEL SIMULATION OF SELF-GRAVITATING GS-DUST SYSTEMS ON GRID  
COMPUTING  
Project Leader:, MUNIRA ISMAIL,  
Grant : 43,200.00, duration :Feb 2010 - July 2011
21. UNIMAS FRGS application titled ' Theory and Computation of High -  
Reynolds Number Flow past a 3D Obstacle. 2009-2011  
Dr jane Labean
22. UITM FRGS: Early Detection of Breast Cancer Growth  
2007-2009. PM Dr Ar smah

---

## Research Consultations

---

### Malaysia Rubber Board

1. Research project entitled" Temperature Prediction"
2. Research on Engineering Field using a distributed Parallel Computer System

### Hospital Besar Sultanah Aminah

Research project entitled" Brain Tumor Behaviour"

### Antara Steel Mills Sdn.Bhd

Research project entitled  
" Parallel Strategies On Distributed Parallel  
Computer Systems"

**SMI Wire Sdn. Bhd**

Implementation of EPCL at SMI wire

**Open source Sdn Bhd**

Architecture of distributed computer system

**The development of HPC Using Open Source on Grid Computing**

Location: Universiti Tenaga Malaysia, Administation Building

Masa 10 Ogos 2007

The development of HPC Using Open Source on Grid Computing

Location: **Technology MARA Institute University-**

Masa March 2007

Neurosurgery Department,

**Hospital Sultanah Aminah** for the Vote No: 78075

Title: Numerical Solution of **Brain Tumor and Breast Cancer Growth** based on Multidimensional Partial Differential

**Malaysia Rubber Board** for the Vote No: 79219

location: Unit Penyelidikan LGM, sungai Buluh Selangor

Title: HPC Heat Transfer visualization involving Phase Change simulation for Rubber Manufacturing Industry

**PNE Sdn. Bhd**

Location: Industrial Estet, Johor Jaya Johor,

Title Multilayer full chip system design

RAHIMRA Sdn. Bhd

**Location:** No 38 A, Wisma Koperasi Melayu Johor,

Jalan Skudai, Batu 6, 81200 Johor Bahru, Johor

Title Dehydration on food technology

**Consultation with 'Malaysia - Nottingham Doctoral**

Programme' (MNDP) which involves study over a three - year period based on periods at Nottingham and Malaysia.

Student: Nor Azni Shahari.

Supervisor Dr Stephen Hibberd

Associate Professor

School of Mathematical Sciences

University of Nottingham

**International Journal/ Preceeding Reviewers:**

1. Review Committee. Mathematical category Editor for the Journal of Fundamental Sciences
2. Review Committee for Matematika, Technology University of Malaysia
3. Scientia Iranica Journal Title:Using the Wavelet Transform Technique (WTT) for Chattering Detection of Flat Milling Surfaces,
4. International Journal of Computer Mathematics . Manuscript ID GCOM-2009-0098-B.R2 and, Manuscript ID GCOM-2009-0098-B.R1,

5. Journal of Numerical Methods for Heat and Fluid Flow , Manuscript ID: HFF-Mar-2009-0031
6. International Journal of Computers and Applications, paper 202-2462, "A MULTIVERSION OPTIMISTIC CONCURRENCY CONTROL PROTOCOL IN MOBILE BROADCAST ENVIRONMENTS
7. Reviewer Committee for 6th International Conference on IT in Asia 2009 (CITA'09) Paper 141, 265, 258, 344:
8. Reviewer EDAS Committee for The 2009 IEEE Symposium on Industrial Electronics & Applications Title: The Research into an Improved Algorithm of Telecommunication Inter-transactional Association Rules Based on Time Series of All Confidence
9. Review Committee WBE-2009 conference, The IASTED Association
10. Computers and Electrical Engineering Journal, Paper COMPELECENG-D-09-00039
11. International Journal of Computers and Applications, Technical Journals at ACTA Press/IASTED paper 202-2462 Title: A Multiversion Optimistic Concurrency Control Protocol in Mobile Broadcast Environments
12. Journal of the Franklin Institute Title: Global robust exponential stability of interval cellular neural networks with time-varying delays. Title: A security embedded infrastructure for tele-traffic speed control Title: A New Delay Prediction and Variable Gain Method for Control of Systems through Networks
13. Review Committee the Regional Annual Fundamental Science Symposium, RAFFS 2006-2010
14. Review Committee 2010 IEEE Symposium on Industrial Electronics & Applications
15. The 2010 Conference on Scientific and Social Science Research (CSSR 2010)

## **International Membership & Organization**

1. Persatuan Sains Matematik Malaysia (PESAMA) (2003-Now)
2. IEEE membership (2006-Now)
3. National Medical Research (NMRR)
4. Intellectuals of the 21<sup>st</sup> Century 2010 Programme
5. 2010 American Chemical Society
6. Marquis Who's Who in the World edition 2007-2011

## **Supervisions**

### **1. PHD students**

- i. Technology University of Malaysia--- 4 Students,
  - i. Teh Yuan Ying (Co-Assoc. Prof Nazerruddin)
  - ii. Norzieha Mustapha (completed 2009) (Co-Prof Norsarahaida Saidina Amin)
  - iii. Lizawati Mi Yusuf (Co-Prof Siti Mariam)

- iv. CheRahim CheTeh
- v. Neda Negarchi (PS093080) Doctor of Philosophy (Mathematics)- PSMA3AJA)  
(Co- Assoc. Prof . Tahir Bin Ahmad)
- vi. Mehdi Ghanbari Basteh Deimi (PS093093) Doctor of Philosophy (Mathematics)-  
PSMA3AJA) (Co- Assoc. Prof . Tahir Bin Ahmad)

- ii. Collaboration with Universiti Tanaga Malaysia ---3 Students,
  - i. Norhalena Mohd Nor ,
  - ii. Noreliza Abu Mansor
  - iii. Amna Abdurrahman
- iii. Collaboration with Technology MARA Institute University---1 Student, Norfarizan Mohd Said
- iv. Collaboration with PUTRA University of Malaysia---1 Student, Noraini Md Jusi
- v. Collaboration with Nottingham-Malaysia Doctoral Programme----1 student  
Pelajar: Nor Azni Shahari (BS) 671206055048  
Co-supervisor : Dr. Stephen Hibberd, Nottingham University

## **2. MSC students**

- i. Technology University of Malaysia--- 6 Students,
  - i. Norhafizah Hamzah
  - ii. Zarith Safiza Abu Bakar
  - iii. Siti Nur Hidayah Khalid
  - iv. Roziha Darwis
  - v. Noriza Satam
  - vi. Rosdiana Shahril
  - vii. Murni Shahirah Bt Mohammad Shariff
  - viii. Norfarizan Mohd Said
  - ix. Madina Bt Jamaludin
  - x. Nor Shahirah Binti Ahmad Rodzo'an
  - xi. Nur Hidayah Mansor
  - xii. Nurashikin bt Abdullah
  - xiii. Mohamad Saufi bin Bero
  - xiv. Leila Saeidiasl
  - xv. Nurul Ain Zhafarina Binti Muhamad  
Mohamad Saufi Bin Bero
- ii. Collaboration with Technology MARA Institute University---1 Student, Hanifah Sulaiman
- iii. Coursework MSC---4 Students ,
  - 1. Najihah Safwa Kashiie
  - 2. Nurul Afifah Abdul Rahman
  - 3. Renugah a/p Rengsamy
  - 4. Bukhari Bin Manshoor
  - 5. Amizah Binti Mohamed Hamzah

iv. Collaboration with Dr. Mohd Shahizan Othman from Faculty of Computer Science and Information System 2- Students

1. Umi Nadia Abdul Basitt (completed 2009)
2. Mohd Hazzim Zainal (in progress)

### **3.BSC (Thesis) 2008**

- \*1. Mohd Ikhwan Safa Masseri (PSM2)
- 2. Tan Yin San(PSM2)
- 3. Nur Syazana Rosly(PSM2)
- 4. Farihan Ismail (PSM1)
- 5. Amir Ridwan Hamzah (PSM1)
- 6. Nor Hazwani Bt Awang Nyan (PSM 1)
- 7. Yap Kim Loong (PSM 1)
- 8. Asnida Binti Che Abd Ghani (PSM 1)

\*Saudara Mohd Ikhwan Safa Masseri  
'The Best Presenter PSM Award' sesi 2007/2008 pada 18 April 2008  
Title: 3D brain tumor growth on HPC

### **Supervision:**

1. Candidate: Norzieha Mustapha- 810520035480  
Institution: Technology University of Malaysia  
Field: Matematik Gunaan  
Sub Field : Mekanik Bendalir  
Thesis/ Project title: Finite Element approximation of the physiological flow on on distributed Parallel Computer systems  
Registration date: July 2005  
Supervision duration from 6 July 2005- 6 July 2005  
Degree's title : PHD (Mathematics)

1. Candidate: Lizawati Mi Yusof (PC073089)  
Institution: Technology University of Malaysia  
Field: Mathematics  
Thesis/ Project title: Neural Networks For High Performance Temperature Prediction Of The Heat Transfer Problem In Electronic Systems Using Distributed Parallel Computer System  
Registration Date: 11 December 2009  
Supervision Duration: July 2007- 6 July 2011  
Degree's Title: PHD (Computer Science)
2. Candidate: Che Rahim Che Teh (PS083089)  
Institution: Technology University of Malaysia  
Field: Mathematics  
Thesis/ Project title: Mathematical Modelling For Dehydration Tropical Fruit.  
Registration Date: 13 January 2009



Supervision Duration: 6 July 2009- 6 Mac 2013  
Degree's Title: PHD (Mathematics)

3. Candidate: Mehdi Ghanbari Basteh Deimi (PS093093)  
Institution: Technology University of Malaysia  
Field: Mathematics  
Thesis/ Project title: Numerical Analysis on Distributed Computing  
Registration Date: 2 December 2009  
Supervision Duration: December 2009- 6 July 2013  
Degree's Title: PhD (Mathematics)
4. Candidate: Teh Yuan Ying (PS073009)  
Institution: Technology University of Malaysia  
Field: Mathematics  
Thesis/ Project title: New Rational Methods and New Kronkod - Type Implicit Runge-Kutta Method for First Order Initial Value Problem  
Registration Date: 4 July 2007  
Supervision Duration: 6 July 2007- 6 Mac 2011  
Degree's Title: PhD (Mathematics)
5. Candidate: Noreliza Mansor (PS0034)  
Institution: University of Tenaga Nasional & University Kebangsaan Malaysia  
Field: Mathematics  
Thesis/ Project title: The New IADE Method for solving PDE  
Registration Date: 4 July 2005  
Supervision Duration: July 2007- 6 July 2011  
Degree's Title: PhD (Industrial Science)
6. Candidate: Norhalena Mohd Nor (UNITEN&UKM) : PS0032  
Institution: University of Tenaga Nasional & University Kebangsaan Malaysia  
Field: Mathematics  
Thesis/ Project title: The Preconditioner of multi dimensional of AGE method  
Registration Date: 4 July 2008  
Supervision Duration: July 2008- 6 July 2011  
Degree's Title: PhD (Industrial Science)
7. Candidate: Noraini Nusi (GS18839)  
Institution: Universiti Putra Malaysia  
Field: Mathematics  
Thesis/ Project title: Parallel Implementation of Scalar Wave Equation Finite Difference Time-Domain (WE-FDTD) Using the Modified Explicit Group (MEG) and The Multigrid Iterative Method on Distributed Shared Memory Machine  
Registration Date: January 2008  
Supervision Duration: January 2008- 6 July 2011  
Degree's Title: PhD (Mathematical Science)
8. Candidate: Nor Azni Shahari (Nottingham-Malaysia)  
Institution: The University of Nottingham

Field: Mathematics  
Thesis/ Project title: Mathematical Modeling for Drying Process  
Registration Date: January 2008  
Supervision Duration: January 2008- 6 July 2011  
Degree's Title: PhD (Mathematical Science)

9. Candidate: Khamirrudin bin Md Derus (PS083076)  
Institution: Technology University of Malaysia  
Field: Mathematics  
Registration Date: 13 January 2009  
Supervision Duration: July 2009- 6 July 2013  
Degree's Title: PhD (Mathematics)

10. Candidate: Aida Vojdanzadeh Moghaddan (PS093024)  
Institution: Technology University of Malaysia  
Field: Mathematics  
Registration Date: 24 June 2009  
Supervision Duration: 6 July 2009- 6 Mac 2012  
Degree's Title: PhD (Mathematics)

11. Candidate: Leila Saeidiasl (PS093137)  
Institution: Technology University of Malaysia  
Field: Mathematics  
Registration Date: 30 December 2009  
Supervision Duration: December 2009 - December 2012  
Degree's Title: PhD (Mathematics)

12. Candidate: Neda Negarchi (PS093080)  
Institution: Technology University of Malaysia  
Field: Mathematics  
Thesis/ Project title: Numerical Analysis on Distributed computing  
Registration Date: 24 June 2009  
Supervision Duration: July 2009- 6 July 2013  
Degree's Title: PhD (Mathematics)

## MSC

13. Candidate: Norhafizah Hamzah (MS073026)  
Institution: Technology University of Malaysia  
Field: Mathematics  
Thesis/ Project title: The Parallelization of Direct and Iterative Schemes for the Keller box Method Using Distributed Memory System  
Registration Date: 4 July 2007  
Supervision Duration: July 2007- Mac 2010  
Degree's Title: M. Sc (Mathematics)

14. Candidate: Murni Shahirah Bt Mohammad Shariff (UTM) : MS093078

Institution: Technology University of Malaysia  
Field: Mathematics  
Thesis/ Project title: Mathematical Simulation on DIC technique  
Registration Date: 27 July 2009  
Supervision Duration: 5 July 2009 - 25 January 2011  
Degree's Title: M. Sc (Mathematics)

**15. Candidate: Hanifah Sulaiman**

Institution: Faculty of Information Technology and Quantitative Science, Technology University of Mara & Technology University of Malaysia  
Field: Mathematics  
Thesis/ Project title: High Performance Visualization for Early Detection of Breast Cancer using Distributed Parallel Computing System  
Registration Date: 14 Mac 2008  
Supervision Duration: May 2008 - April 2010  
Degree's Title: M. Sc (Mathematics)

**16. Candidate: Zarith Safiza Abu Bakar (MS073085)**

Institution: Technology University of Malaysia  
Field: Mathematics  
Thesis/ Project title: Parallel Algorithms of Parabolic Equation for Thermal Control System on Printed Circuit Board  
Registration Date: 11 December 2007  
Supervision Duration: Mac 2008-Mac 2010  
Degree's Title: M. Sc (Mathematics)

**17. Candidate: Roziha Darwis (MS083013)**

Institution: Technology University of Malaysia  
Field: Mathematics  
Thesis/ Project title: Parallel Algorithms of Multidimensional Phase Change Simulation on Raw Rubber Using Grid Architecture  
Registration Date: 24 June 2008  
Supervision Duration: 24 June 2008 - June 2010  
Degree's Title: M. Sc (Mathematics)

**18. Candidate:**

Institution: Technology University of Malaysia  
Field: Mathematics  
Thesis/ Project title:  
Registration Date:  
Supervision Duration:  
Degree's Title:

**19. Candidate: NURUL AFIFAH BINTI ABDUL RAHIM**

Institution: Technology University of Malaysia  
Field: Mathematics  
Thesis/ Project title: THE SOLUTION OF STEFAN PROBLEM BY THE FORNT TRACKING METHOD  
Registration Date: M. Sc (Mathematics)

Supervision Duration: Julai 2008 - Julai 2009  
Degree's Title:

20. Candidate: Siti Nur Hidayah Khalid (MS073074)  
Institution: Technology University of Malaysia  
Field: Mathematics  
Thesis/ Project title: Multi dimensional of human tumor growth  
Registration Date: 11 December 2008  
Supervision Duration: Mac 2008-Mac 2010  
Degree's Title: M. Sc (Mathematics)
21. Candidate: Nurashikin bt Abdullah (MS073084)  
Institution: Technology University of Malaysia  
Field: Mathematics  
Thesis/ Project title: Mathematical modeling for temperature behaviour of Latex  
Registration Date: 11 December 2007  
Supervision Duration: December 2007 - 9 December 2010  
Degree's Title: M. Sc (Mathematics)
22. Candidate: MOHAMAD SAUFI BIN BERO (MS093107)  
Institution: Technology University of Malaysia  
Field: Mathematics  
Registration Date: 9 December 2009  
Supervision Duration: 9 December 2009 - 9 December 2011  
Degree's Title: M. Sc (Mathematics)
23. Candidate: Nurul Ain Zhafarina Binti Muhamad (MS073087)  
Institution: Technology University of Malaysia  
Field: Mathematics  
Registration Date: 26 December 2007  
Supervision Duration: December 2007 - 9 December 2010  
Degree's Title: M. Sc (Mathematics)

2. Candidate: Bukhari Bin Manshoor (MM041040)  
Institution: Mechanical Engineering Technology University of Malaysia  
Field: Fluid mechanics/ parallel computer system  
Sub Field : Fluid Thermo/ distributed memory parallel computer system  
Thesis/ Project title: Incompressible flow simulation using SIMPLE method on a distributed parallel computer systems  
Registration date: Sem 1 Sesi 2005/06  
Supervision duration: from Mei 2005 to Nov 2005

BSC

3. Candidate: Shankar A/L Subramaniam

Institution: Faculty of Education, Technology University of Malaysia, Skudai Johor

Field : Mathematics

Degree's project title : Multigrid scheme on Gauss Seidel iteration method

Degree's title: B. SC.

4. Candidate: Saiful Zaaba Bin Mohamad

Institution Faculty of Education, Technology University of Malaysia , Skudai Johor

Field : Mathematics

Degree's project title: Multigrid scheme on Jacobi iteration method

Degree's title: B. SC.

Supervision duration: 1 year From : 20 Mac 1998 to 25 Mac 1999

5. Candidate: Sulaiman Mukhtar.

Institution : Mathematics Department, Faculty of Science, Technology University of Malaysia Skudai

Field : Numerical Analysis and parallel Computing

Degree's project title The implementation of Parallelism Alternating Decomposition Method in solving PDEs on distributed memory.

Degree's title: B. SC (Faculty of Education).

Supervision duration: 1 tahun From : Mac 2003 To:Mac 2004

6.Candidate: Phang Tau Ing

Institution : Faculty of Education, Technology University of Malaysia, Skudai Johor

Field : Mathematics

Degree's project title: Solving The Numerical Analysis In Quantification Of The Cari Breast Imaging Sensitivity Using Parallel Computing

Degree's title: B. SC.

Supervision duration: 1 year From : 2004 to : 2005

7.Candidate: Siti Zunaidah binti Ismail@Adnan

Institution : Industrial Computing Department, National University of Malaysia

Field : Industrial Computing

Degree's project title: Min Arithmetics solver for One dimensional Heat equation using "Paralllel Virtual Machine".

Degree's title:: B. Sc teknologi dan Sains Maklumat

Supervision duration: From : Jan 2002 to:2002

8.Candidate: Faizoon binti Jumhat

Institution: Faculty of Education, Technology University of Malaysia

Field : Mathematics/ Chemistry

Degree's project title: The Implementation of parallel algorithm in solving spherical coordinate of parabolic equation using "Paralllel Virtual Machine".

Degree's title : B.Sc.

Supervision duration: 1 tahun From : 2003 to:2004

9.Candidate: Hang See Pheng (sesi 2004/05) (AS 010444)

Institution : Mathematics department, Faculty of Science, Technology University of Malaysia Skudai

Field : Numerical method dan parallel computer

Degree's project title : High Performance Simulation for brain tumor growth using parabolic equation on heterogeneous parallel computer systems

Degree's title: B. SC.

Supervision duration: 1 tahun From : Mac 2004 to:Mac 2005

10.Candidate: Amizah Binti Mohamad Hamzah

Institution : Mathematics department, Faculty of Science, Technology University of Malaysia Skudai

Field : Numerical method

Degree's project title: Parallel algorithm using distributed memory in solving one dimensional parabolic equation.

Degree's title: B. SC.

Supervision duration: 1 tahun From : Mac 2003 To:Mac 2004

11.Candidate: Yong Chin Siew

Institution : Technology and Information Science, National University of Malaysia. Field : Industrial Computing/ numerical Analysis

Degree's project title: Mode, Median and varian prediction with large skill sequential and parallel sorting using PVM

Degree's title: B. SC.

Supervision duration: 1 tahun From : Mac 2001 To:Mac 2002

12.Candidate: Siti Noremi Zakaria

Institution : Technology and Information Science, National University of Malaysia. Field : Industrial Computing/ numerical Analysis

Degree's project title: Domain decomposition based on block and center technique using PVM

Degree's title: B. SC.

Supervision duration: 1 tahun From : Mac 2001 To:Mac 2002

13.Candidate: Pua Ah Thow

Institution : Technology and Information Science, National University of Malaysia.

Field : Industrial Computing/ numerical Analysis

Degree's project title: 3D heat equation simulation using parallel Jacobi dan Gauss Seidel methods

Degree's title: B. SC.

Supervision duration: 1 tahun From : Mac 2000 To:Mac 2001

14.Candidate: Riziyana bt. Che Othman (2002)

Institution : Technology and Information Science, National University of Malaysia.

Field : Industrial Computing/ numerical Analysis

Degree's project title: Large sparse Matrix multiplication using 'Parallel Virtual Machine'

Degree's title: B. Sc

Supervision duration: 1 tahun From : 2001 To 2002

15.Candidate: Chong Kim Chor (BSc 2002)

Institution : Technology and Information Science, National University of Malaysia.

Field : Industrial Computing/ numerical Analysis

Degree's project title: The development a Cluster of workstations on Message Passing Interface (MPI) on Gauss Seidel iterative method

Degree's title: B.Sc.

Supervision duration: 1 tahun From : 2001 To:2002

16.Candidate: Yang Ping Shian

Institution : Technology and Information Science, National University of Malaysia.

Field : Industrial Computing/ numerical Analysis

Degree's project title: Solving laser glass interaction problems using Successive Over Relaxation and Jacobi methods

Degree's title: B.Sc.

Supervision duration: 1 tahun from 1999 to: 2000

## Teaching experience)

### Teaching

#### i) Mainstream programme (Diploma/ First Degree/ Postgraduate)

2009/2010

SSE2393 KAEDAH BERANGKA

SSM 3532, SSM2543, SSE 1793 PERSAMAAM TERBITAN

SSH 1783 CALCULUS II

2008/2009

SSH2413 KAEDAH BERANGKA BERKOMPUTERAN (SEC 02)

SSH2413 KAEDAH BERANGKA BERKOMPUTERAN (SEC 01)

SSE2393 NUMERICAL METHOD

SSM3393 KAEDAH BERANGKA

SSH1723, SSM2223 CALCULUS II

SSM 3343 ANALISIS BERANGKA

#### Semester I&II from 2007 to 2008

**SSM 5353** Parallel Computing (M.Sc)

**SSM 3343** Numerical Analysis

**SSM 3393** Numerical Method (2) (SPACE, UTM)  
SSM 1723 Calculus I&II (SPACE, UTM)

**Semester I&II from 2007 to 2008 for Open University Malaysia**

SBMA 1432 Elementary Analysis  
SBMA Advance mathematics

2006/2007 SSH2413 KAEDAH BERANGKA BERKOMPUTERAN SSH2313 ANALISIS BERANGKA SSM3343 ANALISIS BERANGKA SSM1353 PARALLEL COMPUTING SSM 3393 NUMERICAL METHOD
--

**Semester I 2005/2006**

**SSM 5353** Parallel Computing (M.Sc)  
**SSM 3343** Numerical Analysis  
**SSM 3393** Numerical Method (2)  
(space-K.L)

**Semester II 2005/2006**

**SSM 3393** Numerical Method

**Semester I 2004/2005**

SSM 2223  
**2SSD 5 Calculus II**  
SSM2223  
**2SSD 5 Tutorial Calculus II**

SSM 2223  
**2SSC 5 Calculus II**  
SSM2223  
**2SSC 4 Tutorial Calculus II**  
SSM 2223  
**2SSD Calculus II**  
SSM 2223  
**2SSD Tutorial Calculus II**  
SSM 2223  
**2SSD 6 Tutorial Calculus II**

**Semester I 2003/2004**

SSM 2083  
**2SSM Engineering Mathematics**  
SSM 2083  
**2SSM Tutorial**



Semester I 1998/99  
SSM1063 **Engineering Mathematics**  
SSM 1103  
**3 SPS Mathematics**

Semester II 1998/99  
SSM1063 **Engineering Mathematics**  
SSM 1103  
**3 SPS Mathematics**

Semester I 1997/98  
SSM 1103  
**3 SPS Matematik Asas**  
SSM 2983  
**2 SEE, SEM, & SEI Engineering Mathematics**  
**SSM 1063**  
**1DCK Mathematics**

Semester II 1997/98  
SSM 1113  
**1 SSS Mathematics**  
SSM 1113  
**1SPA Mathematics**  
SSM 1262  
**1DCK (13) Mathematics Tutorial**  
**SSM 3532**

Persamaan Terbitan (SPACE)

2) Integrasi:

Semester I and II 1991-1996 - Preparatory Center to Japan

**JMT 1108 Japan Preparatory Mathematical** (lecture)

**JMT 1108 Mathematics** (tutorial)

### **Additional Education Task**

1. Preparation of examination questions and answer scheme SSH 2413: Computational Numerical method
2. Preparation of examination questions and answer scheme MSM 1353 Parallel Computing
3. Degree++ Supercomputer based on your own PCs Semester II
4. SPACE Teaching Programme SSE 2393  
Venue: Johor Bahru
5. Coordinator: Dr Norma Alias  
Joint lecturer : Mr Che Rahim Che Teh  
Preparation of examination questions and answer scheme SSH2413
6. Coordinator: En Zakaria Dollah  
Joint lecturer: Dr Norma Alias  
Preparation of examination questions and answer scheme SSH2393/SSM3393
7. Coordinator: En Hamisan Rahmat  
Joint lecturer: Dr Norma Alias

Preparation of examination questions and answer scheme SSH2313/SSM343

8. Appointed as the committee for MSC dissertation's student

i. Norazaliza Mohd Jamil

ii. Hong pei yee

9. Industrial visit:

Gelang Patah, Nusa Jaya and Senai Johor