PROF. DR. MASRI AYOB

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ADDRESS

Center for Artificial Intelligence Technology(CAIT)
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EDUCATION

Phd (Computer Science)- The University of Nottingham, UK (2005)
Master of Electrical (MEng) - Universiti Teknologi Malaysia (1996)
Bachelor of Engineering (Electrical, Electronics and Systems)(Beng) -Universiti Kebangsaan Malaysia (1990)

RESEARCH EXPERIENCE (21 years, since 1992)

H-index	8 (SciVal Experts), 7(Scopus database) , 14 (Google Sholar)
#Publications	59 (SciVal Experts)
#Citation	156 (Scopus database), 629(Google Sholar)

WORK EXPERIENCE

Head of FTSM postgraduate Programme, FTSM, UKM (2011-2012)
Deputy Director (application), Center of Information Technology, UKM (2006-2009)
Lecturer, FTSM, UKM (1997 – present)
Post-Doctoral Researcher, The University of Nottingham, UK (2005 – 2006)
Researcher, MIMOS BHD (1992 – 2006)

CONSULTATION: SOFTWARE DEVELOPMENT PROJECT (MORE THAN 17 PROJECTS)

1. UKM Student Information System (SMP)
2. Intelligent Examination Timetabling System (InScheduler)
3. UKM Staff Management System (SMK)
4. UKM Research Management System (SMPU)
5. UKM e-Repository Penerbitan (e-Rep)
6. UKM e-Ticket
7. UKM "Sistem Pengurusan Kenderaan"
8. UKM SPKLN
9. UKM "Sistem Permohonan GRA"
10. UKM Sport Management System
11. MIMOS-PPK Traffic Light Management System
12. Noval Smart Lamp

RESEARCH INTEREST

Scheduling, Heuristic Search, Optimization, Timetabling

AWARDS

1. Publication Award (RM10k) (2012); RM1.5K (2008)

2. Excellent Teaching Award (FTSM): TK2123 Computer Organization & Architecture (2011)
3. Excellent Teaching Award (FTSM): TK2633 Microprocessor and Interfacing (2011)
4. International Invention, Innovation and Technology Exhibition Expo (ITEX)-Silver medal (2010)
5. Excellent Service Award (2008)

SUPERVISION (POSTGRADUATE STUDENTS) (2008-2014)
- 16 Graduated Students: 9PhD, 1 MSc (thesis), 6 MSc(mix-mode)
- 7 PhD Students (under supervision)
- 1 MSc Students (under supervision)

PUBLICATIONS
100 articles
- 13 ISI journals (5 Q1, 3 Q2 and 2 Q3, 1 ISI) + 2 in press
- 23 Scopus journals , 11 Refereed journals, 4 Book chapters, 49 proceedings

Selected ISI / High Impact Journals

1) Nasser R. Sabar, **Masri Ayob**, Graham Kendall and Rong Qu (2015). "A Dynamic Multiarmed Bandit-Gene Expression Programming Hyper-Heuristic for Combinatorial Optimization Problems". IEEE Transactions on Cybernetics, 45 (2), (DOI:10.1109/TCYB.2014.2323936).

2) Nasser R. Sabar, **Masri Ayob**, Graham Kendall and Rong Qu (2015). "The Automatic Design of Hyper-heuristic Framework with Gene Expression Programming for Combinatorial Optimization problems". IEEE Transactions on Evolutionary Computation, IEEE publisher, issue 99, (DOI:10.1109/TEVC.2014.2319051; **Q1, Impact factor: 4.8**), in press.

3) Anmar Abuhamdah, Masri Ayob, Graham Kendall and Nasser R. Sabar, (2014). "Population based Local Search for University Course Timetabling Problems" Applied Intelligence, 40(1), pp.44-53. (**Q2, impact factor 1.8**, publisher: Springer, DOI: 10.1007/s10489-013-0444-6).

4) Salwani Abdullah, Nasser R. Sabar, Mohd Zakree Ahmad Nazri and **Masri Ayob** (2014). "An Exponential Monte-Carlo algorithm for feature selection problems", Computers & Industrial Engineering Journal, 67(1), pp. 160-167 Elsevier (**Q2, Impact factor 1.6**).

5) Ghaith Jaradat, **Masri Ayob** and Zulkifli Ahmad (2014), "On the performance of Scatter Search for Post-Enrolment Course Timetabling Problems", Journal of Combinatorial Optimization, 27(3), pp.417-439. (**Q3 journal; impact factor 0.664, Publisher: Springer,** DOI: 10.1007/s10878-012-9521-8, ISSN: 1382-6905).

6) Nasser R. Sabar, **Masri Ayob**, Graham Kendall and Rong Qu (2013). "Grammatical Evolution Hyper-heuristic for Combinatorial Optimization problems", IEEE Transactions on Evolutionary Computation, 17(6), pp.840-861. (**Q1 journal: IF 4.58**, the top five journals in Operation Research**, publisher: IEEE,**).

7) Mohamed Abdo Salleh Hadwan, **Masri Ayob**, Nasser R. Sabar and Rong Qu (2013) "A Harmony Search Algorithm for Nurse Rostering Problems", Information Sciences, 233, pp.126–140 (**Q1 IF 2.833, publisher: Elsevier**).

8) Nasser R. Sabar, **Masri Ayob**, Rong Qu and Graham Kendall (2012). "A Honey-bee Mating Optimization Algorithm for Educational Timetabling Problems", European Journal of Operational Research, 216(3), pp. 533-543,(**Q1 journal; IF 2.158, Publisher: Elsevier**).

9) **Masri Ayob** and Graham Kendall (2008). "A Survey of Surface Mount Device Placement Machine Optimisation: Machine Classification". European Journal of Operational Research (EJOR), Elsevier, 186, pp. 893-914. (**Q1 journal; IF 2.158**).

10) **Masri Ayob** and Graham Kendall (2005). "A Triple Objective Function with a Chebychev Dynamic Point Specification Approach to Optimise the SMD Placement Machine". European Journal of Operational Research (EJOR), Elsevier, 164, pp. 609-626 (**Q1 journal; IF 2.158, 5-year impact factor:2.5**).

INNOVATIONS / IP PROTECTION

2 Copyright and 3 Trademark

RESEARCH GRANTS

Project Leader (Total Amount: RM433,844): 2008-2014; Project Member (Total Amount: RM1,833,200)

1. Hyper-Heuristics Approaches For Police Patrol Routing And Rostering Problems Optimizing Port And Logistic Solutions For Container Terminal: A Simulation Study On Westports.
2. Nature-Inspired Cooperative Hyper-Heuristics Based On Honey-Bee Mating Algorithm: A New Hyper-Heuristic Framework
3. Searching For Solutions Methods: Cartesian Genetic Programming Hyper-Heuristics
4. Reactive Search For Solving Real-World Timetabling Problem
5. Intelligent Examination Timetabling Software

CONFERENCE PARTICIPATION

8 workshops (invited speaker); 46 international conferences

- "Scientific Writing", (2015), Universiti Sultan Zainal Abidin.
- "Scheduling and Optimization", (2014), UiTM Dungun.
- "Inspirasi Minda Cemerlang", (2015), SMK Bandar Seri Putra.
- Evaluator for "Soft Computing Seminar SoCoS 2013) in Conjunction with Postgraduate Annual Research Seminar (PARD 2013), 28-30 May 2013, Soft Computing Research Group, Universiti Teknologi Malaysia.
- "Best Practice in Reporting Results and Experimental Designs", 6 Jan, 2013, Soft Computing Research Group, Universiti Teknologi Malaysia.
- "Do and Don't in Scientific Writing", Mac 2012, Multimedia Software Research Group.
- "Guidelines For Scientific Writing: Do & Don't", November 19-20, 2012, CAIT PostDoctotal Seminar.
- "Best Practice in Reporting Results and Experimental Designs", The 2012 4th Conference on Data Mining and Optimization (DMO12), Langkawi, Malaysia 2-4 Sept. 2012.
  "Timetabling Issues: State of the Art and AI Research: Current and Future Trend", 17 March 2010, Universiti Teknikal Malaysia, Melaka.

JOURNAL REVIEWER AND CONFERENCE PROGRAM COMMITTEE

Reviewer for 16 top journals (ISI, IEEE); Programme committee for 17 international conferences
Reviewed more than 100 ISI journal articles

COMMUNITY SERVICE

1. Intelligent Systems and Applications Technical Committee: Task Force on Hyper-heuristic, IEEE Computational Intelligence Society, Main Committee.
2. IPT Evaluation Panel - RMC Panel: Information and Communication Technology (FRGS grants), Ministry Level, (2014).
3. Committee member for "Domain Pendidikan Liberal UKM: Kekeluargaan, Kesihatan dan Gaya Hidup", UKM level, (2013)

TEACHING EXPERIENCE (2008-2014)

TC6544 Advanced Artificial Intelligence (2013,2014)
TK2153 Information Sharing (Sem3: 2012/2013)
TM6014 Research Methodology (Sem1 & 2: 2011/2012, 2013/2014, 2014/2015)
TK1213 Basic electronics and digital design (Sem2: 2010/2011, 2011/2012).
TK2633 Microprocessor and interfacing (Sem1: 2007/2008, 2010/2011, 2011/2012, 2013/2014) .
TK2123 Computer Organization and Architecture (Sem1: 2011/2012)
TK2934 Object Oriented Programming (Sem2: 2010/2011)
TK1924 Data Structure (Sem2: 2009/2010)
TK6923 Programming II (Sem1: 2007/2008)
TZ1023 Computer Programming for Arts (Sem2: 2007/2008)

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