**DR SURIAYATI CHUPRAT**

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| **A person smiling for the camera  Description automatically generated** | **Personal Data** |
| * Address: Razak Faculty of Technology & Informatics, UTM, Jalan Sultan Yahya Petra, 54100, Kuala Lumpur.
* Position: Associate Professor
* Email: suriayati.kl@utm.my
* Website:<https://people.utm.my/suriayati/>
 |
| **Academic Qualification** |
| * 1995: BSc Computer Science (Software Engineering)
* 1999: MSc Computer Science (Real-time Software Engineering)
* 2009: PhD (Applied Mathematics, in Real-time Scheduling)
* 2007, 2008: Visiting Scholar at CS Department, University of North Carolina, USA.
* 2013: Postdoctoral at CS Department, University of York, UK.
 |
| **Consultation Projects**  |
| * 2019: Development of Cyber-I3 Framework, Cyber Security Malaysia, RM49,500.
* 2019: Development of EDR Framework, Cyber Security Malaysia, RM49,500.
* 2016-2018: Integrated Cyber Evidence (ICE), Cyber Security Malaysia, RM1.72 Mil
* 2017: Membekal dan Memasang Sistem Maklumat Pengurusan Dokumen Fatwa (SMPDF), JAKIM, RM 36,500.00
* 2015: Cryptography Technology for National Defense Industry, RM20,000.
* 2014-2015:Penilaian Menyeluruh Penerimaan Pengguna dan Kepenggunaan Laman Web e-Fatwa Jakim, JAKIM, RM 39,484.00.
 |
| **Research Projects** |
| * 2010-2012 : 3F563 – Title: A Formal Foundation for Real-time Divisible Load Theory. Role: Principal Investigator. Budget Approved: RM54,400.
* 2012-2013 : 09J44 – Title: Algorithms for Energy-Efficient Scheduler in Cloud Computing Platform. Role: Principal Investigator. Budget Approved: RM32,000.
* 2012-2013 :07J53 – Title: Effect of Varying Situations on Requirement Engineering Process In Global Software Development Environment. Role: Co-Researcher. Budget Approved: RM32,000.
* 2012-2013 : 07J92 – Title: Developing A Novel Framework For Cloud Computing Using Medical Approach. Role: Co-Researcher. Budget Approved: RM 32,000.
* 2014-2016 : 11H19 – Title: Enhancing Collaborative Filtering for Recommender Systems by Considering Implicit Feedback and Data Mining Technique. Role: Co-Researcher. Budget Approved: RM50,000.
* 2014-2015 : 10J04 – Title: Intrusion Detection System for Software as a Service in Cloud Computing Environment. Role: Co-Researcher. Budget Approved: RM 19,939.
* 2016-2017 : 07462 – Title: An Improvement of Data Partitioning Technique for Securing Cloud Platform. Role: Principal Investigator. Budget Approved: RM 20,000.
* 2016-2017 : 14H18 – Information Security Risk Assessment Framework For Cloud Computing Environment Using Survival Analysis Method. Role: Co-Researcher. Budget Approved: RM 49,931.30.
* 2016-2017 : 14H76 – A Software Development Effort Re-Estimation For An Ongoing Software Project. Role: Co-Researcher. Budget Approved: RM 50,000.
* 2018-2019 : 20H38 – Hybrid Classification Method for Complex Human Activity Recognition Using Mobile Phone Sensors. Role: Principal Investigator. Budget Approved: RM 48,000.
* 2020-2022 : 01399 - An Ensemble Software Cost And Effort Estimation Model For Malaysian Software Development Sector. Role: Co-Researcher. Budget Approved: RM70,000.00
* 2020-2022 : 18J52 - Modelling A Software Development Effort Estimation For Accurate Prediction During An Ongoing Project. Role: Co-Researcher. Budget Approved: RM30,000.00
* 2020-2022 : 5F229 - Modified Extract Transform Load (ETL) for Improving Big Data Integration Algorithm in Streamlined Creation and Updating OLAP database Processing. Role: Co-Researcher. Budget Approved: RM105,700.00
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| **Teaching Expertise at Postgraduate Level & Undergraduate** |
| **Postgraduate Teaching*** Advanced Software Testing
* Software Engineering Research Paradigm
* Systems Testing & Evaluation
* Research Methodology
* Software Engineering Project
* Software Project & Configuration Management
* Software Constructions
* Cryptography

**Undergraduate*** C Programming
* C++ Programming
* Visual Basic Programming
* Pascal Programming
* Data Communication
* Systems Software
* Computer Network
* Computer Architecture
* Software Engineering
* Data Structure
* Computer Security
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| **Publications** |
| 1. Nazir, S., Fatima, N., Chuprat, S. Situational modern code review framework to support individual sustainability of software engineers (2020) International Journal of Advanced Computer Science and Applications, 11 (6), pp. 366-375.
2. Fatima, N., Nazir, S., Chuprat, S. Knowledge sharing framework for modern code review to diminish software engineering waste (2020) International Journal of Advanced Computer Science and Applications, 11 (6), pp. 442-450.
3. Majid, M. L. A., & Chuprat, S. (2020). Adapting Market-Oriented Policies for Scheduling Divisible Loads on Clouds. International Journal Of Distributed Systems And Technologies, 11(2, Si), 45–55.
4. Fatima, N., Nazir, S., & Chuprat, S. (2020). Knowledge sharing factors for modern code review to minimize software engineering waste. International Journal of Advanced Computer Science and Applications, 11(1), 490-497.
5. Fatima, N., Nazir, S., & Chuprat, S. (2020). Software engineering wastes-A perspective of modern code review. Paper presented at the ACM International Conference Proceeding Series, 93-99. doi:10.1145/3378936.3378953
6. Nazir, S., Fatima, N., & Chuprat, S. (2020). Modern code review benefits-primary findings of a systematic literature review. Paper presented at the ACM International Conference Proceeding Series, 210-215. doi:10.1145/3378936.3378954
7. Nazir, S., Fatima, N., & Chuprat, S. (2020). Situational factors for modern code review to support software engineers' sustainability. International Journal of Advanced Computer Science and Applications, 11(1), 498-504.
8. Nazir, S., Fatima, N., Chuprat, S., Sarkan, H., Nurulhuda, F., & Sjarif, N. N. A. (2020). Sustainable software engineering: A perspective of individual sustainability. International Journal on Advanced Science, Engineering and Information Technology, 10(2), 676-683.
9. Hamit, L. C., Sarkan, H. M., Mohd Azmi, N. F., Mahrin, M. N., Chuprat, S., & Yahya, Y. (2020). Adopting an ISO/IEC 27005:2011-based risk treatment plan to prevent patients from data theft. International Journal on Advanced Science, Engineering and Information Technology, 10(3), 914–919.
10. Amron, M. T., Ibrahim, R., Bakar, N. A. A., & Chuprat, S. (2020). The validity and reliability evaluation of instruments for cloud computing acceptance study. Paper presented at the 2020 6th IEEE International Conference on Information Management, ICIM 2020, 269-273. doi:10.1109/ICIM49319.2020.244710
11. Sjarif, N. N. A., Yahya, Y., Chuprat, S., & Azmi, N. H. F. M. (2020). Support vector machine algorithm for SMS spam classification in the telecommunication industry. International Journal on Advanced Science, Engineering and Information Technology, 10(2), 635-639. doi:10.18517/ijaseit.10.2.10175
12. Fatima, N., Nazir, S., Chuprat, S. (2019). Individual, social and personnel factors influencing modern code review process. Paper presented at the 2019 IEEE Conference on Open System, ICOS 2019, 40-45. doi:10.1109/ICOS47562.2019.8975708.
13. Nazir, S., Fatima, N.,Chuprat, S. (2019). Individual sustainability barriers and mitigation strategies: Systematic literature review protocol. Paper presented at the 2019 IEEE Conference on Open System, ICOS 2019, 1-5. doi:10.1109/ICOS47562.2019.8975707.
14. SS Al-jaboriy, NNA Sjarif, S Chuprat, WM Abduallah. Acute lymphoblastic leukemia segmentation using local pixel information. Pattern Recognition Letters 125, 85-90 2019.
15. AAM Al-araibi, M Naz’ri bin Mahrin, RCM Yusoff, SB Chuprat. A model for technological aspect of e-learning readiness in higher education. Education and Information Technologies 24 (2), 1395-1431, 2019.
16. Rejab, Mazidah Mat; Azmi, Nurulhuda Firdaus Mohd; Chuprat, Suriayati. Fuzzy Delphi Method for Evaluating HyTEE Model (Hybrid Software Change Management Tool with Test Effort Estimation). International Journal Of Advanced Computer Science And Applications Volume: 10 Issue: 4 Pages: 529-535 Published: APR 2019.
17. Chuprat, S., Ariffin, A., Sahibuddin, S., Mahrin, M.N., Senan, F.M., Ahmad, N.A., Narayana, G., Magalingam, P., Anuar, S., Talib, M.Z. Malware forensic analytics framework using big data platform. (2019). Advances in Intelligent Systems and Computing, 881, pp. 261-274.
18. Hasan, Hazila; Chuprat, Suriayati; Mahrin, Mohd Naz’ri. Secured Data Partitioning through Sequence based Mapping and Random Order of Data Separation. International Journal Of Security And Its Applications, Volume: 12 Issue: 5 Pages: 11-20 Published: SEP 2018.
19. Chuprat, Suriayati; Mahrin, Mohd Naz’ri; Anuar, Syahid; et al. Malware Prediction Techniques: Selection and Implementation for Integrated Cyber Evidence. International Journal of Security And Its Applications, Volume: 12 Issue: 5 Pages: 11-20 Published: SEP 2018.
20. Mahrin, M.N., Chuprat, S., Subbarao, A., Ariffin, A.F.M., Talib, M.Z.A., Darus, M.Z.A., Aziz, F.A.A. Malware prediction algorithm: Systematic review. (2018) Journal of Theoretical and Applied Information Technology, 96 (16), pp. 5438-5457. Mobark, M., Chuprat, S., Sarkan, H., Mahrin, M.N., Azmi, N.F.M., Yahya, Y. Recognition of complex human activity using mobile phones: A systematic literature review. (2018) Journal of Theoretical and Applied Information Technology, 96 (12), pp. 3756-3779.
21. Mimi Liza and Suriayati Chuprat. Cost-Aware Real-time Divisible Loads Scheduling in Cloud Computing. Journal of Fundamental and Applied Sciences, 2018.
22. Nargis Fatima, Suriayati Chuprat and Sumaira Nazir. Challenges and Benefits of Modern Code Review-Systematic Literature Review Protocol. 2018 International Conference on Smart Computing and Electronic Enterprise (ICSCEE). Mobark, M., Chuprat, S., Mantoro, T. Improving The Accuracy Of Complex Activities Recognition Using Accelerometer-Embedded Mobile Phone Classifiers (2018) Proceedings of the 2nd International Conference on Informatics and Computing, ICIC 2017, 2018-January, pp. 1-5.
23. AS Moghaddam, J Hosseinkhani, S Chuprat, AM Birgani, S Keikhaee. Applying Social Network Analysis Techniques in Crawler Based Search Engine to Support Web Terrorism Mining. International Journal Of Computer Science And Network Security, 17 (8), pp75-81, 2017.
24. Amir Hatami, Suriayati Chuprat, Haslina Sarkan and Nurulhuda Firdaus Mohd Azmi. Hybrid Real-Time Task Scheduling Algorithm in Overload Situation for Multiprocessor System. Journal of Telecomunication, Electronic and Computer Engineering, 2017.
25. Najafabadi, M.K., Mahrin, M.N., Chuprat, S., Sarkan, H.M. Improving the accuracy of collaborative filtering recommendations using clustering and association rules mining on implicit data. Computers in Human Behavior, 2017. pp. 113-128. Hazila Hasan, Suriayati Chuprat, Othman Yusop, Haslina Sarkan. Data Reconstruction Through Sequence Based Mapping in Secured Data Partitioning. Advanced Science Letters, Volume 23, Number 6, June 2017, pp. 5522-5526(5).
26. Mohammed Mobark, Suriayati Chuprat, Teddy Mantoro, Azizul Azizan. Utilization of Mobile Phone Sensors for Complex Human Activity Recognition. Advanced Science Letters, Volume 23, Number 6, June 2017, pp. 5466-5471(6).
27. Amir Hatami, Suriayati Chuprat. Hybrid Task Scheduling Framework Based On EDF and HPIO in Overloaded Situation. 2016 IEEE Conference on Systems, Process and Control (ICSPC 2016), 16–18 December 2016, Melaka, Malaysia. (Best Paper Award).
28. Nurulhuda Firdaus Mohd Azmi, Haslina Md. Sarkan, Yazriwati Yahya, Suriayati Chuprat. ABCD Rules Segmentation On Malignant Tumor And Benign Skin Lesion Images. International Conference On Computer & Information Sciences 2016. (Best Paper Award)
29. Hazila Hasan, Suriayati Chuprat. Efficient and secured data partitioning cloud environment. Journal of Information Assurance and Security, 2015.
30. Amir Hatami Hardoroudi; Suriayati Chuprat. Task scheduling algorithm based on particle swarm optimization (PSO) and invasive weed optimization to execute tasks in overloaded situation for preemptive system. ARPN Journal of Engineering and Applied Sciences. 2015;10(2):499-505.
31. Hazila Hasan; Suriayati Chuprat. Secured data partitioning in multi cloud environment. 2014 4th World Congress on Information and Communication Technologies, WICT 2014. 2015:146-151.
32. Brohi, S.N., Bamiah, M.A., Chuprat, S., Ab, J.-L. Design and implementation of a privacy preserved off-premises cloud storage (2014) Journal of Computer Science, 10 (2), pp. 210223.
33. Hedayatpour, S., Kama, N., Chuprat, S. A sticker-based model using DNA computing for generating real random numbers (2014) International Journal of Security and its Applications, 8 (4), pp. 113-122.
34. Hedayatpour, S., Kama, N., Chuprat, S. Analyzing security aspects during software design phase using attack-based analysis model (2014) International Journal of Software Engineering and its Applications, 8 (3), pp. 143-156.
35. Hosseinkhani, J., Ibrahim, S., Chuprat, S., Naniz, J.H.Web crime mining by means of data mining techniques (2014) Research Journal of Applied Sciences, Engineering and Technology, 7 (10), pp. 2027-2032.
36. Moghaddam, A.S., Hosseinkhani, J., Chuprat, S., Taherdoost, H., Baravati, H.B. Proposing a framework for exploration of crime data using web structure and content mining (2013) Research Journal of Applied Sciences, Engineering and Technology, 6 (19), pp. 3617-3624.
37. Yazid, I.M., Mazlan, S.A., Zamzuri, H., Mughni, M.J., Chuprat, S. Parameters consideration in designing a magnetorheological damper (2013) Key Engineering Materials, 543, pp. 487-490.
38. Chuprat, S., Mazlan, S.A. A linear programming approach for scheduling divisible real-time workloads (2013) International Journal of Computers and their Applications, 20 (1), pp. 2331.
39. Khan, H.H., Mahrin, M.N.B., Chuprat, S.B. Situational requirement engineering: A systematic literature review protocol (2013) 2013 IEEE Conference on Open Systems, ICOS 2013, art. no. 6735060, pp. 123-126.
40. Khan, H.H., Mahrin, M.N.B., Chuprat, S.B. Situational factors affecting requirement engineering process in global software development (2013) 2013 IEEE Conference on Open Systems, ICOS 2013, art. no. 6735059, pp. 118-122.
41. Hematian, A., Chuprat, S., Manaf, A.A., Yazdani, S., Parsazadeh, N. Real-time FPGA-based human iris recognition embedded system: Zero-delay human iris feature extraction (2013) Advances in Intelligent Systems and Computing, 209 AISC, pp. 195-204. Indexed Scopus.
42. Hematian, A., Chuprat, S., Manaf, A.A., Parsazadeh, N. Zero-delay FPGA-based odd-even sorting network (2013) IEEE Symposium on Computers and Informatics, ISCI 2013, art. no. 6612389, pp. 128-131.
43. Brohi, S.N., Bamiah, M.A., Chuprat, S., Ab Manan, J.-L. Towards an efficient and secure educational platform on cloud infrastructure (2012) Proceedings of 2012 International Conference on Cloud Computing Technologies, Applications and Management, ICCCTAM 2012, art. no. 6488088, pp. 145-150.
44. Hosseinkhani, J., Chuprat, S., Taherdoost, H. Discovering criminal networks by Web structure mining (2012) Proceedings – 2012 7th International Conference on Computing and Convergence Technology (ICCIT, ICEI and ICACT), ICCCT 2012, art. no. 6530494, pp. 10741079.
45. Bamiah, M., Brohi, S., Chuprat, S., Ab Manan, J.-L. A study on significance of adopting cloud computing paradigm in healthcare sector (2012) Proceedings of 2012 International Conference on Cloud Computing Technologies, Applications and Management, ICCCTAM 2012, art. no. 6488073, pp. 65-68.
46. Bamiah, M., Brohi, S., Chuprat, S., Brohi, M.N. Cloud implementation security challenges (2012) Proceedings of 2012 International Conference on Cloud Computing Technologies, Applications and Management, ICCCTAM 2012, art. no. 6488093, pp. 174-178.
47. Mohamad, F.S., Manaf, A.A., Chuprat, S. Exploiting suitable color model for ripeness identification (2012) Proceedings of the 2012 International Conference on Image Processing, Computer Vision, and Pattern Recognition, IPCV 2012, 1, pp. 483-488.
48. Hematian, A., Manaf, A.A., Chuprat, S., Khaleghparast, R., Yazdani, S. Field programmable gate array system for real-time IRIS recognition (2012) 2012 IEEE Conference on Open Systems, ICOS 2012, art. no. 6417657.
49. Bamiah, M.A., Brohi, S.N., Chuprat, S. Using virtual machine monitors to overcome the challenges of monitoring and managing virtualized cloud infrastructures (2012) Proceedings of SPIE – The International Society for Optical Engineering, 8349, art. no. 83491M.
50. Hedayatpour, S., Chuprat, S. Hash functions-based random number generator with image data source (2011) 2011 IEEE Conference on Open Systems, ICOS 2011, art. no. 6079248, pp. 75-79.
51. Ibrahim, M.H.A., Ahmad, R., Ibrahim, N.K., Chuprat, S., Haron, H. Nurse scheduling with fairness criteria for public hospital (2011) ICCAIE 2011 – 2011 IEEE Conference on Computer Applications and Industrial Electronics, art. no. 6162111, pp. 91-95.
52. Chuprat, S., Baruah, S. Real-time divisible load theory: Incorporating computation costs (2011) Proceedings – 17th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications, RTCSA 2011, 1, art. no. 6029827, pp. 33-37.
53. Hedayatpour, S., Chuprat, S. Random number generator based on transformed image data source (2011) Lecture Notes in Electrical Engineering, 121 LNEE, pp. 457-464.
54. Hamid, N.A., Safei, S., Satar, S.D.M., Chuprat, S., Ahmad, R. Mouse movement behavioral biometric systems (2011) Proceedings – 2011 International Conference on User Science and Engineering, i-USEr 2011, art. no. 6150566, pp. 206-211.
55. Susilawati, M.F., Abdul Manaf, A., Chuprat, S. The use of elimination method and nearest neighbor for oil palm fruit ripeness indicator (2011) Communications in Computer and Information Science, 179 CCIS (PART 1), pp. 674-686.
56. Mohamad, F.S., Manaf, A.A., Chuprat, S. Nearest neighbor for histogram-based feature extraction (2011) Procedia Computer Science, 4, pp. 1296-1305.
57. Mohamad, F.S., Manaf, A.A., Chuprat, S. Histogram matching for color detection: A preliminary study (2010) Proceedings 2010 International Symposium on Information Technology – System Development and Application and Knowledge Society, ITSim’10, 3, art. no. 5561637, pp. 1679-1684.
58. Chuprat, S. Divisible Load scheduling of real-time task on heterogeneous clusters (2010) Proceedings 2010 International Symposium on Information Technology – Engineering Technology, ITSim’10, 2, art. no. 5561542, pp. 721-726.
59. Ibrahim, M.H.A., Ahmad, R., Chuprat, S., Haron, H., Ibrahim, N.K. A review on the workload in the nurse rostering problem(2010) Proceedings 2010 International Symposium on Information Technology – System Development and Application and Knowledge Society, ITSim’10, 3, art. no. 5561458, pp. 1591-1595.
60. Chuprat, S., Salleh, S., Goddard, S. Real-time divisible load theory: A perspective (2009) Proceedings of the International Conference on Parallel Processing Workshops, art. no. 5366903, pp. 6-10.
61. Chuprat, S., Salleh, S., Baruah, S.K. Evaluation of a linear programming approach towards scheduling divisible real-time loads (2008) Proceedings – International Symposium on Information Technology 2008, ITSim, 1, art. no. 4631596.
62. Chuprat, S., Baruah, S. Scheduling divisible real-time loads on clusters with varying processor start times (2008) Proceedings – 14th IEEE International Conference on Embedded and RealTime Computing Systems and Applications, RTCSA 2008, art. no. 4617269, pp. 15-24.
63. Chuprat, S., Salleh, S. A deadline-based algorithm for dynamic task scheduling with precedence constraints (2007) Proceedings of the IASTED International Conference on Parallel and Distributed Computing and Systems, pp. 158-163.
 |
| **Management Experiences** |
| * Head Taskforce for Development of Executive Programs in Data Science
* Faculty Group Leader for Future Ready Educators (FREE)
* Micro-Credential Program Coordinator
* IT Services and Asset Manager
* Marketing Manager
* IT Manager
* Academic Manager
* Head of Department (Software Engineering)
* Advisor of UTM AIS Post Graduate Student Society
* Head of Information Technology Computing Lab
* Program Coordinator for SPACE Program (DDC/DDZ) KL Campus
* Head of Programming Panel
 |
| **Supervision** |
| **PhD Student (Graduated)*** Rajermani, Doctor of Philosophy, 2020
* Amir Hatami Hardoroudi, PhD, Computer Science, 2017
* Pegah Razmara PhD, Computer Science, 2015
* Huma Hayat Khan, Doctor of Philosophy, 2015
* Mervat Adib Bamiah, Doctor of Software Engineering, 2014
* Sarfraz Nawaz Brohi, Doctor of Software Engineering, 2014
* Fatma Susilawati Mohamad, PhD, Computer Science, 2013

 **PhD Student (On-going)*** Nur Fatehah, Doctor of Software Engineering
* Hidayah Hamzah, Doctor of Philosophy
* Hazila Hasan, Doctor of Philosophy
* Nargis Fatima, Doctor of Philosophy (Submitted for Viva)
* Sumaira Nazir, Doctor of Philosophy (Submitted for Viva)
* Mohammed Mobark Salem Wahdeen, Doctor of Philosophy (Correction)
* Mimi Liza Abdul Majid, Doctor of Philosophy (Correction)

**Master Student (By Research, Graduated)*** Iza’in Nurfateha Bt Ruzan (Master of Philosophy)
* Mohd Hakimi Aiman Ibrahim (Master of Philosophy)
* Siti Fatimah Khairiah M. Amin (Master of Software Engineering)
* Nur Arifah Binti Zainal (Master of Software Engineering)
* Muhammad Bin Maharoff
* Saman Hedayatpour
* Azhari Bin Omar (Master of Science (IT Management))
* Shavira Bin Alias (Master of Science (IT Management))
* Nazanin Sadat Kazazi (Master of Computer Science (Information Security))
* Nazirah bt Abd Hamid (Master of Computer Science (Information Security))
* Mohd Syahid Bin Mohd Anuar (Master of Software Engineering)
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