

SERG (Software Engineering Research Group) is a dynamic research group deeply engaged in advancing techniques, methodologies, processes, and tools for enhancing the development and maintenance of extensive and intricate software systems. Our research efforts span multiple domains within software engineering, with a special emphasis on key research themes, including Software Modeling, Software Testing, Software Reusability, Dependable Real-time Systems, Intelligent Software Systems, and Software as a Service (SaaS)

Client

KEMPAS HOSPITAL MANAGEMENT SYSTEM

EFFRON SDN BHD

(I-WTP) WATER MANAGEMENT SYSTEM

SAJ SDN BHD



THE DESIGN OF SERVICE-ORIENTED ARCHITECTURE FOR VARIOUS GOVERNMENT AGENCIES

GATES IT SDN BHD

SOFTWARE QUALITY ASSURANCE FOR RAPID TRANSIT SYSTEM (RTS) LINK

SAPURA RAIL SYSTEMS SDN BHD & RTS **OPERATIONS PTE LTD**

KVMRT (T) SDN BHD

SOFTWARE QUALITY ASSURANCE FOR KLANG VALLEY MASS RAPID TRANSIT (KVMRT) LINE 21

SAPURA EV DYNAMIC CONSORTIUM (SECO)









Our Iconic Product



It is a Dengue-Entomological Surveillance and Prediction (DESaP) Application in supporting dengue outbreak surveillance and prevention.

Robokar

Computational Thinking

Through Robotics

Programming

all Student Analysis

SIMOBE

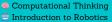










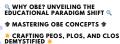


- Algorithms and Problem Solving
- Introduction to
- Programming **Debugging**





BY: TS DR SIM **HIEW MOI**



→ CONSTRUCTIVE ALIGNMENT AT YOUR FINGERTIPS →

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CRAFTING COGNITIVE TEST ITEMS WITH FINESSE

CONTINUOUS QUALITY

CURRICULUM BRILLIANCE DR RAZAK SAMINGAN



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ASSOC, PROF. **DR MOHAMAD ADHAM ISA**



DR SHAHLIZA DR HISHAMUDIN **ABD HALIM**



DR NORAINI IBRAHIM



TS DR NOOR AZIZAH SA'ADON



DR ADILA FIRDAUS ARBAIN



DR NOOR **HIDAYAH ZAKARIA**



TS DR SIM HIEW MOI



DR ALIF RIDZUAN KHAIRUDIN



MR NORIZAM KATMON



DR MUHAMMAD **KHATIBSYARBI NI ABD RAHIM**

BUSINESS PROCESS IMPROVEMENTS







March 2023

PLO9

30 / 40

50 %



JOIN OUR

CRASH COURSE PROGRAM

RESEARCH AREAS

I. **SOFTWARE DEVELOPMENT METHODOLOGIES:**

REGISTER NOW

- AGILE SOFTWARE DEVELOPMENT
- WATERFALL MODEL
- DEVOPS
- CONTINUOUS INTEGRATION
- SCRUM
- KANBAN
- 2. **SOFTWARE ARCHITECTURE:**
- ARCHITECTURAL PATTERNS
- MICROSERVICES
- SERVICE-ORIENTED ARCHITECTURE (SOA)
- CLOUD COMPUTING ARCHITECTURES
- DISTRIBUTED SYSTEMS

3. **SOFTWARE TESTING AND QUALITY ASSURANCE:**

- TEST AUTOMATION
- TEST DRIVEN DEVELOPMENT (TDD)
- QUALITY METRICS
- SOFTWARE VERIFICATION AND VALIDATION
- MUTATION TESTING

4. **SOFTWARE REQUIREMENTS ENGINEERING:**

- REQUIREMENT ELICITATION
- REQUIREMENT ANALYSIS
- REQUIREMENT SPECIFICATION
- REQUIREMENTS MANAGEMENT

5. **SOFTWARE METRICS AND MEASUREMENT:**

- SOFTWARE COMPLEXITY METRICS
- CODE METRICS
- PROCESS METRICS
- PRODUCT METRICS

6. **EMPIRICAL SOFTWARE ENGINEERING:**

- DATA-DRIVEN SOFTWARE ENGINEERING
- EXPERIMENTATION IN SOFTWARE ENGINEERING
- CASE STUDIES

7. **SOFTWARE EDUCATION AND TRAINING:**

- SOFTWARE ENGINEERING EDUCATION

Are you an educator or a student 1. eager to enhance your software engineering research skills?

Join us for an intensive and captivating 2-days workshop on **Software** Engineering Research Methodology.

@ What You'll Learn:

- Introduction to software engineering.
- Systematic literature review.
- Problem formulation in software engineering.
- Research design in software engineering.

Engineering

Research

©At the end of the workshop, participants will be able to:

 Relate the appropriate software engineering field of study, SWEBOK classification and research method with the potential topic of study.

· Perform literature surveys, literature comprehension and research literature review report.

· Write the research gaps, problem statement, research questions and research objectives which all interrelate with each other.

 Apply the appropriate research design approaches in software engineering.



OUTM

Unlock the Power of Agile Software Documentation!

Are you ready to elevate your software documentation to the next level? Introducing our immersive crash course on

"Best Practices in Agile Software Documentation".

@ What You'll Learn:

- Understand the pivotal role of documentation in Agile software development.
- Harness Agile principles to create documentation that adapts and evolves.
- Document Project Management **Plan, Software Requirements Specification, Software Design Document, Software Testing Document, Software Deployment** Report.
 - **Design UML model** Leverage tools and technologies to simplify documentation

