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MSTB Malaysian Software Testing Board

MSTH Malaysia Software Testing Hub

COVER STORY

SoftwareTest Scheme for Malaysian Organisations

Malaysian organisations that are developing software or software-enabled products and services are encouraged to take advantage of the MSTH Quality-Test Assist Programme (Q-TAP), introduced by the Malaysian Software Testing Board (MSTB).

The scheme has been designed to assist participating organisations to acquire competencies and build up in-house capabilities in software testing through a structured programme. At the end of the programme, participating organisations can expect to have a team of highly-skilled and certified professionals in the fields on software testing and software quality assurance (SQA).

In making this call, Deputy Minister of Science, Technology and Innovation, Datuk Haji Fadillah bin Haji Yusof, said these capabilities and competencies would ultimately help the organisations to further improve their team productivity and product quality and subsequently enhancing their market competitiveness and profitability.

"I believe such capabilities and competencies will greatly benefit the companies as well as the country's economy. With these highly sought-after skills, these companies can strategically position themselves to offer their services internationally and in turn contribute to the growth of the national economy," he said.

He added that on a bigger picture, the programme provides the bridge towards achieving one of the major objectives of the Malaysia Software Testing Hub (MSTH) initiative, which is to create industry clusters that are highly competent and specialised in specific industry verticals.

"These specialised services will be crucial to the industry as the clusters will be key in achieving Malaysia's aspiration to become the preferred destination for global outsourced software testing services in the few years to come.

"This is indeed crucial for the software testing industry if we are to succeed and make an impact in the global market with the goal of becoming a preferred destination for outsourced software testing services where quality assurance, verification and validation are the order of the day," Datuk Haji Fadillah said at the official launch of MSTH Q-TAP in Kuala Lumpur recently.

MSTB President Mastura Abu Samah explained that, the MSTH Q-TAP scheme, among others, includes trainings and certifications of team members from participating organisations.

Participants would also be exposed to testing tools and methodologies available at the Q-Lab. And throughout the duration of the programme, participants will receive consultancy and guidance from highly-experienced consultants from Q-Laboratory, an advanced software testing facility operated by the MSTB.

Symbolic gesture: *Science, Technology and Innovation Deputy Minister Datuk Haji Fadillah Haji Yusof (2nd from right) launching the MSTH Q-TAP. He is assited by MSTB President Mastura Abu Samah (centre) and Telekom R&D Sdn Bhd's CEO Dr. Gopi Kurup (right), while MSTB Director Amiruddin Jaafar Sidek (left) and Mesiniaga Berhad's Managing Director Fathil Sulaiman Ismail look on*

■ Memphis Trip Special Reports - Page 3 - 6 ■ TMR&D Signs up for Q-TAP - Page 2 ■ SOFTEC2011 Update - Page 8

SOFTEC 2011

TMR&D Signs Up for MSTH Q-TAP

Increasing expectations and demands from customers on quality products and services have prompted TM Research and Development Sdn Bhd (TMR&D) to seek ways to enhance its in-house software testing capabilities.

The company, a wholly-owned subsidiary of Syarikat Telekom Malaysia Berhad, did not take long to sign up for the MSTH Quality – Test Assist Programme (Q-TAP), a scheme to help Malaysian organisations acquire competencies and build up in-house capabilities in software testing, introduced by the Malaysian Software Testing Board (MSTB).

The two parties inked a Memorandum of Agreement on the programme in conjunction with the official launch of MSTH Q-TAP by Datuk Haji Fadillah bin Haji Yusof, Deputy Minister of Science, Technology, and Innovation in Kuala Lumpur last month. Signing on behalf of TMR&D was its Chief Executive Officer Dr. Gopi Kurup while MSTB President Mastura Abu Samah represented the Board. With the agreement sealed, TMR&D officially became the first participant of the MSTH Q-TAP scheme.

Q-TAP's first: *MSTB President Mastura Abu Samah (2nd from left) and TMR&D CEO Dr. Gopi Kurup signing the agreement at the launch of Q-Tap. Witnessing the signing are (l-r) Fathil Sulaiman Ismail, Managing Director, Mesiniaga Berhad, YB Datuk Hj Fadillah bin Yusof, Depity Minister, Ministry of Science, Technology, and Innovation, and MSTB Director Amiruddin Jaafar Sidek*

Q-INDUSTRY

Certification Trainings for Public Sector

Expert guidance: *Certified Trainer Corne Kruger (standing) giving some pointers during group discussions portion of the training*

A total of 48 personnel from various government department and agencies underwent the certification trainings and examinations for Certified Tester Foundation Level (CTFL) and Certified Professional for Requirements Engineering (CPRE) in April this year.

Of the total number, 26 were in the session for the CTFL while the remaining 22 were in the CPRE session.

CTFL is professional certification scheme offered by the International Software Testing Qualifications Board (ISTQB) while CPRE scheme is owned by the International Requirements Engineering Board (IREB). The Malaysian Software Testing Board (MSTB) is the exclusive administrator for both schemes in Malaysia.

The trainings were held at the National Institute of Public Administration (INTAN) campus in Bukit Kiara, Kuala Lumpur. Both training sessions were conducted by certified trainer Corne Kruger.

The programme also included a visit to the Q-LAB for some hands-on tools workshop for the participants.

MSTB in Overseas Trade Promotions

MSTB took part in two international trade shows – CeBIT 2011 and the Malaysia Services Exhibition 2011 (MSE 2011) – in March and April this year. The teams were out to promote Q-LAB professional services as well as SOFTEC2011.

CeBIT is billed as the largest computer trade show in the world, and this year's edition attracted over 300,000 visitors from around the world. Most visitors to MSTB booth showed interests on testing services offered by the Q-LAB.

MSE 2011, meanwhile, is the fourth of a series of service exhibition organised by MATRADE. The first edition was held in Sharjah in 2008. MSE aims to bring the best of Malaysian service companies under one roof to explore business opportunities in the in the middle-east markets.

VIP visitor: *MSTB's Shuhaimi Abdul Kadir (right) greeting UAE's Foreign Trade Minister Sheikha Lubna Al Qasimi (left) during her tour of the MSE 2011 exhibition. Looking on is PIKOM President Shaifubahrim Mohd Saleh*

Testing @ **Memphis**

In Pursuit of Global Partnerships

Memphis may not at the top of mind when one talks about IT developments. In the field of software testing, however, it has great story to tell. Over the last few years, significant achievements have been made in this field in terms of developments of testing body of knowledge and the industry. Quite a few things can be learnt from efforts to push the development of the industry. Perhaps, the biggest enabling factor for the software testing industry to flourish is the close and constructive working relationship among the stake holders.

A delegation from MSTB was on a business visit to University of Memphis in the USA recently, following an invitation from Dr. Jasbir Dhaliwal, the Associate Dean (Research and Academics) and Professor of Management Information Systems at the university's Fogelman College of Business & Economics.

The delegation, which was led by MSTB President Mastura Abu Samah, also comprised officers from the Economic Planning Unit (EPU).
The visit coincided with the 5th International Research Workshop on Advances and Innovations in Software Testing organised by Systems Testing Excellence Program (STEP) at the FedEx Institute of Technology (FIT). Professor Dhaliwal is also the Director of STEP.

Attentive audience: *Delegates at the 5th International Research Workshop on Advances and Innovations in Software Testing comprised both the academic and industry practice*

Apart from participating in the STEP Workshop, the visit also provided a window for MSTB to explore possible collaborations in the areas of applied research as well as commercial ventures with STEP/FIT and companies within FIT's network.

During the trip, MSTB delegation had several exploratory meetings with professors at the University of Memphis who are involved in the STEP project as well as with senior executives from selected companies which have adopted software testing in significant ways. At the meetings, various topics of mutual interests were discussed on.

According to Mastura, the visit was fruitful and in many ways, it opened up new perspectives on software testing and how businesses can maximise benefits from it through innovative ways of applying testing function within their operations.

"Based on our discussions, it was quite clear that adoption of software testing among the corporations in Memphis (and US, generally) is at a higher level compared to the stage we are in currently.

"Through collaborative applied researches with FIT, US organisations have found ways to leverage on software testing as use it as a strategic function to help them improve operational efficiency. This is something that Malaysian organisations should emulate," she said.

She added that applied research is an important area to pursue as only from proper studies can we develop new knowledge and innovative solutions as well as guide the industry to move in the right direction.

MSTH Gets International Attention

It was the first time that the Malaysia Software Testing Hub (MSTH) initiative presented in full at a public forum outside of the country and the response was encouraging.

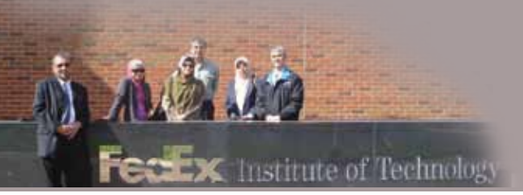
MSTB President Mastura Abu Samah made the presentation at the 5th International Research Workshop on Advances and Innovations in Software Testing, organised by Systems Testing Excellence Program (STEP) at the FedEx Institute of Technology (FIT) at the University of Memphis.

Participants at the workshop, held in Memphis, USA on May 2nd and 3rd, were particularly impressed by the approach and the depth of thoughts that had gone into formulation of the MSTH initiative.

They saw the initiative as a reflection of a nation's commitment in developing the software testing industry.

International Research Workshop on Advances and Innovations in Software Testing is an annual event which features a mixture of presentations and open discussions. Attended by participants from both academic and industry practice, it is an avenue to generate a full and free interchange of ideas and methodologies on software testing.

At this year's event, the keynote addresses were presented by Dr. Steven Hutchinson, Test and Evaluation Executive, US Defense Information Systems Agency (DISA) and Ralph Groce III, the Chief Technology Officer at Wells Fargo's Wachovia Bank.



Testing @ **Memphis**

Software Testing in Memphis

Helming the drive to promote software testing is the University of Memphis. The university has developed its own testing body of knowledge in the form of the Systems Testing Excellence Program (STEP). STEP is an interdisciplinary programme under the auspices of the Departments of Computer Science, Management Information Systems and Computer Engineering, and FedEx Institute of Technology (FIT).

FIT itself serves as the university's innovation and entrepreneurship engagement centre. It is the 'door' for industry, government and community organisations to get into the University in search of collaborations, innovations and entrepreneurships.
Among others, FIT fosters relationships on a comprehensive level, providing value-added services, technology commercialisation, research collaboration and connectivity throughout the University of Memphis' extensive collection of prominent centres, faculties, students and corporate partners.

Common among these 'players' is their enthusiasm towards research. Great emphasis is put on applied research – towards solving real issues faced by businesses. In fact, much of the developments in testing techniques, methodologies and applications have been based on research findings. These findings are shared among members of the community.

MSTB had the opportunity to meet with some of the companies which have been collaborating with STEP/FIT. Various types of issues were discussed but emphasis was on software testing, its applications, and how the companies are benefitting from it. The companies included Cook Systems International, First Tennessee Bank, Federal Express (FedEx) and Merck Pharmaceutical.

Global pitch: *MSTB President Mastura Abu Samah presenting on MSTH in a special session at the 5th International Workshop on Advances and Innovations in Software Testing*

Daily routine: *A scene at FedEx's Global Hub located at Memphis International airport. On normal days, the hub processes over 1.5 million packages of different sizes and destinations in a space of about 4 hours - picture courtesy of FedEx*

First Tennessee Bank's Chandy Littlejohn (left) in discussion with members of MSTB delegation during the latter's visit to the bank in Memphis

For the album: *FedEx's Dave Miller (3rd from right) poses with visitors from MSTB at FedEx's World Technology Center, Memphis*

Briefing in progress: *Members of MTSB delegation listening to presentation on IT initiatives in Merck Pharmaceuticals*

FedEx Relies on Tested IT Solutions

Global transportation company Federal Express (FedEx) depends on technology to run its operations and make deliveries on time.

Globally, the company handles some 8.5 million a day on the average. And as part of the task, there are the logistics challenges to coordinate movements of nearly 700 aircrafts and more than 80,000 vehicles in over 220 countries and territories.

For FedEx, IT system support is absolutely crucial for its complex logistics requirements. In fact, the company would have trouble fulfilling promise on its Overnight Delivery service without the support system that spans across the globe. Much of FedEx's operational efficiency can be attributed to the efficiency in the IT division which is responsible for maintenance, development and deployment of a large number of systems and applications. A major contributor to the division's ability to manage the complex environment smoothly is its Test Centre of Excellence strategy.

A late evening visit to FedEx's Global Hub at the Memphis International Airport grounds provided a glimpse of the whole picture.

On a daily basis, the Global Hub processes over 1.5 million parcels in a space of about 4 hours – starting at 10:00 p.m., or so.
These consignments are brought to the Hub through land and air transportation. They have to be sorted out according to sizes and destinations, and loaded onto the right planes – some 150 aircrafts wait at the tarmac.

Event with some 7,000 people engaged for the duration, the job could not be done without automation. The only manual parts of the process are the flipping the parcel so that the barcode would face the right direction, loading of sorted parcel onto the palettes and loading of the aircrafts, the rest of the processes are automated.

Knowledge sharing: *Memphis University's Professor Dr. Robin Poston explaining finer points of sofwtare testing based on her research findings*

Open discussion: *Cook Systems International's Bob Frontberry (left) sharing thoughts with MSTB delegation*

Tapping Undergraduate Talents

CollegeCareerCorps is not an internship programme. It is not a college either. It is an innovative solution to overcome inter-related problems faced by a company and the industry in relation to rising costs and dwindling supply of fresh talents.

About a decade ago, system integrator Cook Systems International was seeking alternative ways, other than get offshore contracts, to defray its cost of doing business. The reason being that the offshore costs were increasing and that made the option less competitive.

At the same time, it was noticed that the trend to send jobs offshore was also driving away students from IT-related degree programmes as they saw that there were not enough jobs that remained onshore for them.

Backed by researched information, Cook Systems came up with CollegeCareerCorps as the solution to provide cost-effective alternatives to most offshore models. It keeps the jobs onshore and helps develops future workforce.

Bob Fortenberry (right) in discussion with MSTB President Mastura Abu Samah (centre) and EPU's K-Economy Director Azizah Hamzah

Under the programme, Cook Systems hires top-performing undergraduate students as 'Associate Consultants' and put them on a real project under the mentorship of experienced consultants. Customers are aware of the status of the Associate Consultants.

The programme has undergone through changes over the years and in the current format, students are hired early in their second year study and they will remain employed under the programme for three years – until they graduate. As Associates Consultants, they are groomed and are expected to carry themselves just as professional consultant would.

Cook Systems initially worked with the FedEx Institute of Technology at the University of Memphis on this programme. Since then the CollegeCareerCorps programme has grown nationally and expanded to over 20 nationally-recognised colleges and universities nationwide.

As explained by Cook Systems' Vice President Bob Fortenberry, CollegeCareerCorps enables the company make their costs globally competitive as they are able to defrayed staffing costs by averaging out the charges associated with experienced and associate consultants.

"We do not compromise in terms of the quality of work as at the end of the day, Cook Systems still bears the responsibility over the project. In fact, the students are always eager to do the best to prove themselves. Customers are happy because they get the same level of commitment and quality from us at a competitive price."
Perhaps, the students are most happy as they gained the highly valued industry experience and get paid for it. And of course they end up as fresh graduates with 3 years work experience.

Fortenberry added that giving industry exposure to students earlier in their studies also helps them understand the issues better.

"They are also more likely to attain higher level of achievement in times to come," he said, adding that the industry also benefits from the programme as it helps generate a pool of trained and competent talents for the industry. CollegeCareerCorps also helps keep the jobs onshore, and consequently, rejuvenates the interest among students to take up IT-related courses.

Flexi Terms for Practicals

Just as in most universities, undergraduates IT students at University of Memphis are required to earn some credit-hours of practical/industry experience to complete their degree programme.

However, there is no fixed 'practical' semester. Students have the whole four years (the duration for the degree programme to earn the 3 credit-hours required.

Department of Computer Science Chair Professor Dr. Sajjan Shiva explained that students may opt for the standard 'full-time' attachment over a semester, or shorter attachment periods over several semesters. Alternatively, they may also secure employment in relevant fields and earn the required credit hours.

"In any of the cases, the Department will evaluate the actual work done by the students to determine whether or not the credit-hours have been earned," he said, adding that the academic regime is also flexible enough to make adjustments to lecture schedules to accommodate undergraduates 'work' commitments. For example, students could go to their workplace in the morning and attend lectures in the afternoon.

***Knowledge sharing:** Prof. Shiva (standing) elaborating a point during discussion with MSTB delegation*

PRESIDENT'S NOTE

Bridging the Academic-Industry Gap

Often have we heard remarks or comments on the gap between the level of skills and competencies among our fresh graduates and those expected by the industry. Indeed this issue is not unknown and various efforts have been carried out. Yet, the gap still exists.

Certainly, it is never an easy task to balance between strong foundational knowledge to be learnt in lecture halls and skill competencies to be gained from practical and work experiences in the industry.
Given the fact that the different speeds at which changes take place in the academic and industry, it is fair to say that the gap will remain to exist. Perhaps, the best one can do is to narrow the gap.

As difficult a task as it may be, it is not impossible. Key to make it work close cooperation between our Institutes of Higher learning (IHLs) and the industry, and it must be a two-way continuous relationship.

I saw this during my recent business visit to University of Memphis, USA recently. The university works closely in multiple fronts – research and development, industry advisory and industry exposure for students. And all these are done at the departmental level.

Memphis University practices flexible-enough policy to allow faculties accommodate suggestions from the industry where they see fit. Similarly, the industry responds to request for supports from the faculties.

In terms of industry exposure, students are not prohibited from seeking industry experience to the point that they are allowed to be employed while still studying. The faculties have no qualm in finding ways to accommodate these students' needs for adjustments in their academic schedule, provided that the works they do are relevant to the course that they are taking. And the companies which employ those students reciprocate the flexibility.

The end result: fresh graduates with solid work experience. This would certainly significantly enhance the fresh graduates' employability.

I see this as win-win-win pacts. The faculties get to keep their courses relevant to industry needs. The industry will get work-ready talents fresh out of the universities.

The question is, can this approach be adapted into our higher education system?

WORLD NEWS

Users Cry Foul over iPhone's Tracking Feature

Features of an operating system, or an application for that matter, are typically designed to benefit users. Some users may not find some of the features are not necessary or even useless. And they probably just ignore them.

But what if users see a particular feature as offensive? Would the feature then be deemed a design flaw?

The case in question is the tracking feature included in the iPhone operating system (iOS). It has been discovered that the tracking feature captures and stores detail information about the device locations.

As explained by Apple, the feature is designed to enable the company offers accurate location-based services to users.

The thing is, the information on locations gets updated even if the Location Services on the iPhone is turned off.

The file that keeps the information is stored secretly on the phone and backed up (equally hidden) on the user's computers whenever the iPhone is synchronised on that machine. And the records never get deleted.

Security analysts were quick to sound the alarm – this poses a danger that someone would be able to chart movements of an iPhone user should he/she get hold of either the iPhone or the computer used to synchronise the phone.

Of course bad news travels fast and wide over the Net, thanks to the ever-watchful Bloggers and online news portals.

Many questions Apple's motive of putting in such a feature in the iOS. Users were unaware what went on until this issue came to light. Some even suggested that this tantamounted to 'spying' on iPhone users to collect valuable information that could be commercially useful in the future.

Apple finally responded and issued a statement that the company would release a free iOS software updates that would ensure the software reduces the size of the crowd-sourced Wi-Fi hotspot and cell tower database cached on the iPhone, ceases backing up this cache, and deletes this cache entirely when Location Services is turned off. Apple admitted that the failure for iPhone to stop updating location data was caused by a software bug.

Tracked: *Most users were previously unaware that the iPhone keeps fairly detailed records of their locations*

SOFTEC2011

Challenges in Achieving Software Quality

There are many known factors which influence software quality results and they include methodologies, tools, and talent resources.
Knowing these factors alone is not sufficient. A lot of thoughts, experiences and understandings have been put behind this simplified statement. Capers Jones understands this subject well.

Jones is the President of Capers Jones & Associates LLC, US. Today, he primarily works with large software-producing organisations. With years of experience under his belt, Jones is revered as the top Guru in the field of software testing and he will be unraveling these success factors to achieving software quality at the forthcoming SOFTEC2011.

At the conference, Jones will not talk about just the theory. Delegates can expect to learn much more including measured impact of poor quality on the software industry, state-of-the-art of defect prevention and removal, value of achieving more than 95% defect removal efficiency and return on investment of successful quality control.

Apart from Jones, there will be 16 other speakers at SOFTEC2011, the 4th edition of annual conference on software testing organised by MSTB.

Software testing leads to quality, which eventually translates into competitiveness and profitability. Strategic application of software testing also helps improve operational efficiency.

The learning opportunity at SOFTEC2011 is just too invaluable to be missed.

softec2011
SOFTWARE TESTING CONFERENCE

Meet SOFTEC2011 speakers

Chris Rupp
President IREB and CEO of SOPHIST GmbH

After 15 years of active involvement in the field of systems engineering, Chris has founded a company, published 6 books. Her passion for project consulting has kept her going closer to the customer by working in -or leading- projects – not mere managing, governing, and bringing people forward.

Anne Matte Jonassen Haas
Principal Consultant, Delta Axiom, Denmark

Anne Mette has worked with IT development in many areas including hospital, the oil industry, telecommunication, hardware manufacturing and the space industry. She has experienced what it means not to have proper requirements, configuration management, or testing.

Stuart Reid
Senior Lecturer, Cranfield University, UK

Stuart Reid, who won the Testing Excellence Award at EuroSTAR 2001, has a PhD in Software Testing. He had previously worked on high-integrity systems such as avionics, radar and command and control systems. Reid is Chair of the BCS (Chartered Institute for IT) Specialist Group in Software Testing (SIGiST).

SOFTEC2011 on the Move

MSTB has gone mobile with the awareness campaign for the SOFTEC2011. A total of 15 busses, all wrapped up with information of SOFTEC2011, are plying across the city's busiest routes.The aim is to promote awareness on the event among motorists, not so much to the passengers of the busses, says MSTB President Mastura Abu Samah.

SOFTEC2011 is the 4th edition of MSTB's annual conference and it will be beld from July 6 to 8, 2011 in Kuala Lumpur. The theme of this year's conference is 'Test It Right'.

Visit all-new www.mstb.org/softec2011

MSTB Malaysian Software Testing Board

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