HOW DAIYA MECHC-MISED
ON-SITE PRODUCTIVITY
TALENTS FOR TOMORROW
SMARTER TOOLS, SMARTER BUILDING

CABLE LAYING, REENGINEERED
We would love to hear from you if you would like to share any best practices and latest technologies that could improve construction productivity. Please email us at bca_enquiry@bca.gov.sg

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Dear reader,

In our fast changing world, time is of the essence. This is why successful businesses are always seeking ways to improvise and innovate to achieve quality results in the shortest possible time.

Within the built environment industry, more and more companies are also exploring alternative ways to work smarter and faster. One such company is Arbeit Sicher Pte Ltd. For two years running, they won BCA’s Construction Productivity Awards for coming up with innovative systems and methodologies that save time and improve construction processes.

Another company, Gammon Pte Ltd, has also made productivity enhancements by looking at new ways to lay cables. The project received funding from BCA’s Productivity Improvement Project Scheme. These companies have taken the step forward to improve the way they work and are now reaping the benefits from their efforts.

When it comes to learning about new construction technologies and systems to improve productivity, we should always look beyond our horizons. BCA’s Construction Productivity Centre organises regular learning journeys overseas to help the industry stay abreast of productive methods in the global market.

A recent learning journey took a group of industry participants to Tokyo where they saw how productive systems could be implemented in the production phase so that time is saved to ensure quality work on site.

But home is where we should set our sights on when it comes to building a pool of competent professionals to lead and transform the industry and to continuously drive the productivity movement. We have many talents in our local institutes of higher learning that are waiting to be tapped, and I am glad to say that in recent years, more and more firms have recognised the need to nurture these students by partnering BCA to offer scholarships and sponsorships to them.

In fact, this year, with the introduction of a new diploma scholarship and sponsorship programme, we gave out a record number of more than 160 awards to our young talents who will hopefully become our industry leaders in the near future. We welcome you and your company to join BCA in grooming more young talents for our industry.

Dr John Keung
Chief Executive Officer
Daiya Engineering & Construction Pte Ltd first began its business in 1987 by constructing petrol stations, but 15 years ago, it moved into the building of private residential houses.

With this switch came new challenges. Clients started requesting for their houses to be completed within a shorter period of time without compromising on quality. This prompted Daiya Engineering & Construction to explore new equipment, technologies and ideas to enhance productivity.

Mr Andy Foo, Director, Daiya Engineering & Construction, decided to tap into the Building and Construction Authority’s (BCA) Mechanisation Credit (MechC) scheme to help the company adopt new equipment. The financial aid helped the company purchase a mini crawler crane, a rough terrain crane, a crawler crane with telescopic boom and two boom lifts.

“Replacing some of our on-site manual tasks with these equipment has been essential in helping us speed up our work processes, cut down on manpower needs and complete projects in a shorter time,” said Mr Foo.

The mini crawler comes in useful for working in small construction sites such as bungalows or condominiums with narrow access. Previously, Daiya Engineering & Construction had to rely on workers to transport materials to the sites, as mobile cranes were too big to enter. With the mini crawler, there is no longer a need for manual transportation.

In large-scale projects, Daiya Engineering & Construction makes use of its newly purchased rough terrain crane to lift and hoist heavier and bigger construction materials to greater heights. The crane has a higher lifting capacity, wider reach and can be set up quickly. This results in time savings and manpower reduction.

With MechC funding, Daiya Engineering & Construction is now more equipped in constructing a wider range of buildings.
Scaffolding has always been the traditional working platform to carry out plastering, painting and facade installation works at height. The two boom lifts have removed the need for the erecting and dismantling of scaffolding. This cuts down the number of workers by half and results in an enhancement in the firm’s existing work processes.

Mr Foo said, “Proper planning and studying of the site conditions are critical during the initial stage of the project to help us determine the correct type of equipment to purchase and use.”

Besides purchasing equipment, Mr Foo pointed out that the company has also adopted the use of Building Information Modelling (BIM) and has tapped on BCA’s BIM fund to help defray the cost incurred in training, consultancy, software and hardware.

To find out more about the MechC scheme, please visit http://www.bca.gov.sg/MechC/mechc.html
大亚工程
以各种器材提升生产力

通过机械化奖励计划的资金援助，
大亚采购了各种不同的建筑器材
以提高建筑生产力。

大亚建筑工程董事符敦成决定利用建设局的机械化奖励
计划协助公司采购新器材。通过该计划的资金援助，公司
采购了一台小型履带起重机、一台崎岖地形起重机、一台
伸缩臂式履带起重机及两台升降机。

符敦成表示：“利用这些器材取代某些利用人力施工的工
程有助于加快我们的工作流程、减少人工需求以及在更短
的时间内完成工程项目。”

小型履带起重机非常适用于空间狭小及入口狭窄的施工
项目，如洋房或公寓项目。之前，由于移动式起重机的体
型太大，无法进工地，大亚工程建筑必须利用工人将建
筑材料从工地入口搬进工地。自从启用小型履带起重机之
后，公司无需再利用多名工人搬运建筑材料。

在大型项目方面，大亚利用新采购的崎岖地形起重机，
将更大型粗重的建筑材料抬到更高处。该起重机具备更高
的起重容量，更宽大的范围，并可快速搭建。这些长处可
减少人工并节省时间。
鹰架一向是在高处展开抹灰、油漆及门面安装工作的传统工作平台。大亚工程建筑采购了两台升降机后，减去了搭建及拆除脚手架的需要。这不但将所需的员工减少一半，也改进公司现有的工作流程。

符敦珏表示：“在每一项目目的初期，对于工地状况进行适当规划与研究是非常关键的。这影响我们决定所必须采购并适用的器材。”

除了器材采购，符敦珏另外指出，利用建设局建筑生产力与产能基金属下的建筑信息模型基金也使公司提高生产力和支付大亚工程建筑在培训、咨询、软件及硬件方面的开销。

欲了解更多关于机械化奖励计划的详情，请浏览http://www.bca.gov.sg/MechC/mechc.html
ARBEIT SICHER: HEIGHTENING INNOVATION IN LIFT INSTALLATION

The firm has won BCA’s recognition for its TeMP system and CLiMB12 methodology.

Mr Danny Low, Managing Director, of Arbeit Sicher Pte Ltd, shares the company’s recipe for success.

At the Construction Productivity Awards (CPA) this year, Arbeit Sicher Pte Ltd clinched the CPA - Best Practices and Innovations Platinum award for the second year running. Arbeit Sicher Pte Ltd is a local firm with more than 20 years of experience in furnishing, maintenance and installation of lifts and escalators. Build Smart speaks to Mr Danny Low, Managing Director, Arbeit Sicher Pte Ltd, to discover the firm’s secrets to success.

Q
Share with us the innovations that led Arbeit Sicher to clinch the CPA – Best Practices and Innovations award for two consecutive years.

A
In 2011, we were awarded the CPA for our innovative TeMP system, which is a cantilever working platform and temporary access frame for lift installation.

The traditional method of hoist-way access for installation and maintenance work in lift shafts uses metal frame scaffolds. Arbeit Sicher enhanced the conventional scaffold system by cutting down on the number of scaffold parts, which results in a reduction of set-up time and improvements in the lift installation process. Builders are able to use this system at any building floor to carry out the required work.

In 2012, we enhanced the TeMP system to the CLiMB12 methodology. With the CLiMB12 methodology, we are able to install the lift in the absence of the three-phase power supply on site. It also facilitates progressive building construction.
With the TeMP system implemented in 2008 and CLiMB12 in 2011, we have successfully accomplished the objectives of increasing productivity, reducing overall construction costs and increasing the level of safety in the work environment. By shortening construction lead-time through our innovations, our stakeholders benefit as well.

We strongly believe that there are no boundaries to innovation and we should continue to strive to evolve and further enhance our products and methods to help the whole industry become more productive.

It is definitely not an easy task to convince industry stakeholders to adopt a new product or method. For example, most lift installation works in the past were contracted to sub-contractors who engaged low-cost foreign workers. We have to constantly encourage them to try out our innovations. With perseverance, patience and an unwavering commitment, we have slowly won over the support of most lift companies.

Moving forward, we are gearing up for worldwide recognition as we apply for international patent for TeMP and CLiMB12. They have a potential to reach out to markets around the world.

We also plan to explore business opportunities in overseas markets. This way, more stakeholders can make use of our systems to enhance their productivity.

The TeMP system is made up of a cantilever working platform and a temporary access frame for lift installation.

**Benefits of Using the TeMP System**

- Zero bolting to the building structure
- Deployable to any location because of its light weight and durability
- Has a flexible working height of up to 12 metres
- Easy to disassemble and transport
- Takes up little storage space
CABLE LAYING, REENGINEERED

With assistance from BCA, Gammon Pte Ltd modifies a vehicle to enhance the cable installation process.

Banking on its wealth of experience in engineering design, Gammon Pte Ltd decided to take up the challenge of formulating a better way of installing high and low voltage cables onto tunnel walls with financial assistance from the Building and Construction Authority’s (BCA) Productivity Improvement Project (PIP) scheme.

The conventional method was a time consuming and labour intensive operation. Firstly, the cable drum had to be placed and secured at floor level. From there, workers had to manually pull and place the cable on the floor with the aid of cable rollers. Then, they had to lift and slot it onto the tunnel wall brackets using either scaffoldings or scissor lifts. A total of 20 to 25 workers would have to be mobilised to carry out the installation work.

In Gammon’s new method, the cable drum is fitted onto a moving vehicle attached with a working platform. A modified trailer is used for high voltage cables installation while a lorry crane is used for low voltage cables installation. The height of the drum and the working platform are adjusted so that workers standing on the platform can pull and place the cable onto the tunnel wall bracket while the vehicle is travelling slowly.

The firm has successfully implemented the new method in the Marina Coastal Expressway project with the Land Transport Authority. Gammon only required 10 men to complete the installation works, which is a 60% reduction in manpower requirements. This would mean a 400% increase in productivity. With this success, Gammon is keen to embark on more process improvements to enhance productivity on site.

To find out more about the PIP scheme, please visit http://www.bca.gov.sg/PIP/pip.html
重新设计
电缆敷设过程

通过建设局的协助，金门建筑将车辆重新改良，以改进电缆敷设工程

有鉴于公司在工程设计方面的丰富经验，金门建筑有限公司决定接受挑战，通过建设局生产力改进计划（Productivity Improvement Project，简称PIP）的经济援助，研制出在隧道工程安装高低电缆的更好方式。

传统的电缆敷设方式则是项耗时耗人工的工程。首先，电缆卷筒必须安置在地面。接着，员工必须利用电缆导轮将电缆从卷筒拉出并放置在地面。然后，他们必须利用棚架或剪刀式升降机抬起电缆才能将电缆安装在隧道壁的支架。此安装过程必须动用20到25名工人。

金门建设的新电缆敷设方式，采用了经改良的车辆，将电缆卷筒安装在车辆上才进行电缆敷设。高压电缆的安装将会使用到一辆经改良的拖车，而低压电缆的安装则会使用到一辆随车起重机。电缆卷筒及工作平台的高度可随时调整，以便站在平台上的员工在车辆慢速行驶的当儿，将电缆从卷筒拉出并安装在隧道壁的支架。

金门建筑已成功地在陆交局的滨海高速公路项目中实施新的电缆敷设方式。公司仅需10名工人来完成敷设工程，成功地将人工需求减少60%。这也意味着生产力总共提升400%。经过这次的成功后，金门建筑有意参与更多的过程改进工作，以提升工地生产力。

欲知更多关于PIP的详情，请游览 http://www.bca.gov.sg/PIP/pip.html
In Japan, delegates learnt about various productivity systems. They share their observations here

To help the industry keep abreast of developments in construction technologies and systems, the Building and Construction Authority (BCA) has been organising overseas learning journeys.

In July, BCA organised a productivity learning journey to Tokyo, Japan. Er Lam Siew Wah, Deputy Chief Executive Officer, BCA, led a delegation of 29 participants comprising developers, consultants, contractors and subcontractors.

Several members from the recently formed Construction Productivity Centre Advisory Panel (CPC-AP) Subcommittee also participated in the trip. The Subcommittee was formed to look into challenges that smaller firms face in enhancing productivity and to help these firms embark on their productivity journey.

The delegation visited six building projects, three factories, one research institute and one showroom over four days. The delegates noted that the trip was fruitful and informative.

Said Mr Thomas Chiew, Executive Director, Singapore Piling & Civil Engineering Pte Ltd, “It was a wonderful and eye-opening trip as we witnessed how Japanese builders improve their productivity through the implementation of pre-fabrication and dry trade installation.”

Mr Ben Wang, Director, B-Mech Engineering Pte Ltd, added, "I was very impressed by the flexible sprinkler system when I saw it. It is effective in enhancing productivity."

The learning journeys allow the delegates – particularly the smaller main contractors and subcontractors – to gain insights on more productive architectural, structural, mechanical, electrical and plumbing systems. They also encourage developers, consultants and main contractors to work more closely with subcontractors so that productive systems can be implemented.

“In Japan, the design development, coordination and decisions are all done and made prior to the commencement of the work, which means the team can fully focus on the execution and quality during the construction period. It was illuminating to be able to view the work sites and factories of the Japanese, and learn their methods,” said Mr Sim Ming Howe, Architect, DCA Architects Pte Ltd.

**Companies Visited**

<table>
<thead>
<tr>
<th>Developers:</th>
<th>Mitsubishi Estate Co. Ltd.</th>
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<tr>
<td></td>
<td>Mitsui Fudosan Co. Ltd.</td>
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<td>Contractors:</td>
<td>Kajima Corporation</td>
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<td></td>
<td>Obayashi Corporation</td>
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<td></td>
<td>Shimizu Corporation</td>
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<td>Manufacturers:</td>
<td>Sekisui House Ltd.</td>
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<td></td>
<td>Takahasi Curtain Wall Corporation</td>
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<td></td>
<td>TOTO Ltd.</td>
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<td>Wako Seisakusho Co. Ltd.</td>
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Key Productivity Observations

> Extensive use of large precast components that are produced both on site and off site to minimise the number of components, lifts and joints.

> Precast components are jointed easily and quickly by using splice sleeves.

> With precast construction, a three-day floor cycle can be achieved.

> Extensive use of drywalls for constructing walls between and within units.

> Drywalls can be erected quickly and there are no wet works involved.

> Extensive use of flexible hot and cold water pipes.

> False ceiling and raised floor are commonly used to cover up the mechanical, electrical and plumbing (MEP) services.

> Dry construction is adopted upon completion of structural works. No wet trades.

> Meticulous planning of interior architectural and MEP works with dedicated teams performing each trade.

> Flexible pipes reduce the number of joints required and time required for installation.

> All residential projects use prefabricated bathroom units (PBU) constructed using lightweight wall-floor panel system.

> The PBU wall panel is made of steel and finished with laminated films.

> The PBU floor is made of fibreglass and finished with a soft tile-looking mat.

> The PBU can be installed quickly with little manpower.

> Flexible sprinkler droppers are commonly used in commercial projects.

> This helps to increase productivity by reducing the time required to install the sprinkler heads.
In the next few years, the local built environment industry will be re-energised with a new batch of young talents. A record number of 106 scholarship awards were given out at this year’s BCA-Industry Built Environment Scholarship Award Ceremony to boost talent grooming.

Mr Tan Chuan-Jin, Acting Minister for Manpower and Senior Minister of State for National Development, and Dr John Keung, Chief Executive Officer of the Building and Construction Authority (BCA), presented the awards.

The Undergraduate Scholarships that were conferred this year hit a new high. 61 students from local universities received the scholarship, up from the 55 places given out last year. Some of the sponsoring firms for the Undergraduate Scholarship programme include Woh Hup (Private) Limited and Swee Hong Limited.

Mr Kenneth Lim, Assistant Director of Swee Hong Limited, said, “Many people have the impression that construction is a sunset industry. This isn’t true. In fact, we’re constantly upgrading ourselves to adopt more advanced technologies for productivity. Technology is one area that the younger generation can easily relate to. That is why we’re actively reaching out to them. Our partnership with BCA in sponsoring the scholarships also helps attract local talent into our firm.”

Among this year’s scholarship recipients was the inaugural batch of 45 students from the Diploma Scholarship programme. They received scholarships either sponsored fully by BCA or in partnership with industry firms. This new programme has attracted 11 industry firms – ranging from architectural consultants and builders to specialist contractors – committed to offering diploma scholarships to top talents from local polytechnics and the BCA Academy.

BCA also forged new partnerships with several industry firms including S A Chua Architects Pte Ltd and SD Architects LLP to sponsor both undergraduate and diploma scholarship programmes.

“Scouting and retaining local talent is a challenge within the industry, but BCA’s manpower development programmes have encouraged progressive firms to nurture the next generation of building professionals,” said Mr Chua Seow Ann, Principal Architect, S A Chua Architects Pte Ltd. He has mentored many architects over the years.

He added, “The BCA-Industry Built Environment Scholarship programme also gives us a better chance to train students at an early stage, involve them in company activities and groom them before they graduate.”

Since the launch of the Scholarship in 1993, BCA has partnered at least 100 firms to provide more than 300 Undergraduate Scholarships to outstanding youths. Now, the programme has been extended to reach out to diploma students. Both the Undergraduate and Diploma Scholarships are funded under the $250 million BCA Construction Productivity and Capability Fund.

For more information on the BCA-Industry Built Environment Scholarship programme, please visit http://www.buildingcareers.sg
More one-to-one consultation services slated for the industry after the success of the BCA – SCAL CPCF Clinic

The industry can now look forward to more one-to-one consultation sessions on productivity. Since May 2012, construction firms are welcome to attend the new Building and Construction Authority (BCA) Productivity Clinic, which will offer in-depth advice on productivity issues and schemes.

One-to-one consultations have been proven to be a successful approach in understanding productivity, according to the industry. This was confirmed when BCA and the Singapore Contractors Association Limited (SCAL) rolled out the Construction Productivity and Capability Fund (CPCF) Clinic in December 2011 and received overwhelming response.

During the sessions, BCA’s CPCF account managers provided one-to-one consultation on the Fund and were on hand to provide clarifications and assistance on applications for the various schemes.

The new BCA CPCF Clinic is held at a convenient centralised location at BCA’s headquarters at Maxwell Road – with well-timed slots. Interested participants can register for the sessions through telephone booking or email.

自2012年5月起，建筑公司业者可出席建设局新设的建设局 CPCF 咨询服务。此服务将以一对一的方式为参与者解答关于“建筑生产力与产能基金”（简称 CPCF）各项计划的疑问。

根据建筑业界给予的反馈，以一对一的方式提供咨询服务可很有效的让建筑公司业者了解建筑生产力。建设局与新加坡建筑商公会自2012年12月起共同提供的 BCA – SCAL CPCF 咨询服务得到了热烈反应及凸显了这项目的有效性。建设局的 CPCF 帐户经理不但为参与者解答 CPCF 的疑问，也协助参与者解决申请各项计划时所面对的问题。

新设的建设局 CPCF 咨询服务将在建设局位于麦士威路的办公室进行。有意参与者，可透过电话或电邮预约。

For more information or to register, please contact:

<table>
<thead>
<tr>
<th>BCA CPCF Clinic</th>
<th>BCA – SCAL CPCF Clinic</th>
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<tbody>
<tr>
<td>Ms Ezrin Raof (BCA)</td>
<td>Mr Chow Chang See (SCAL)</td>
</tr>
<tr>
<td>Tel (电话) : 6325 5093</td>
<td>Tel (电话) : 6278 9577</td>
</tr>
<tr>
<td>Fax (传真) : 6223 6381</td>
<td>Fax (传真) : 6273 3977</td>
</tr>
<tr>
<td>Email (电邮) : ezrin_raof @ bca.gov.sg</td>
<td>Email (电邮) :</td>
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While the needs of the building industry continue to evolve and become more sophisticated, it is vital that buildings remain buildable.

To highlight the importance of buildable designs, the Building and Construction Authority (BCA) and the Singapore Institute of Architects (SIA) joined hands to organise Creating Buildable Architecture, a series of lectures that aims to share ideas on best practices and shed light on practical design considerations.

Almost a hundred registered participants attended the first series held on 31 July 2012 at the SIA Theatrette. Well-known speakers and experts discussed a wide range of topics including design strategies, the adoption of modular design, the use of prefabricated components and systems and the use of precast in buildings. The topics were tackled from the perspectives of designers and systems specialists.

Subsequent lectures will continue to provide a platform for the industry to discuss and adopt smart building strategies, especially in the areas of modular design and prefabricated components.
The 10th Smart Builders Leadership Series was launched, attracting over 100 industry stakeholders keen on exploring smarter work processes and technologies.

Held at the MND Auditorium, the Series provided a platform for equipment suppliers and vendors to share on the latest products and systems that can be adopted to improve productivity along the construction value chain. For a roundup of some of these products presented at the 10th Series, see New Technologies for the Industry.

Besides the sharing by the vendors and suppliers, Ms Audrey Yue from the Inland Revenue Authority of Singapore (IRAS) also briefed the participants on the Productivity and Innovation Credit (PIC) scheme. PIC provides tax benefits for business investments in six activities along the innovation value chain. This includes training of employees and purchase or leasing of PIC automation equipment. For more information on the PIC scheme, please visit http://www.iras.gov.sg/irashome/PICredit.aspx

The next Smart Builders Leadership Series will be held in September 2012. If you are interested to register, please contact Ezrin at 6325 5093, or email ezrin_raof@bcagov.sg.
FAMILIARISATION COURSES FOR CORETRADE CANDIDATES

These courses will better prepare candidates for the skills assessment

Under the Building and Construction Authority’s (BCA) CoreTrade Scheme, candidates who wish to register as CoreTrade Tradesmen or CoreTrade Foremen have to undergo skills assessment conducted by BCA. With effect from 1 October 2012, all CoreTrade applicants are required to attend the familiarisation courses before attempting the skills assessment.

BCA Academy has a series of familiarisation courses to prepare the candidates for the skills assessment. These courses range from 1 to 1½ days, tailored for the different types of trades listed below. BCA’s Construction Productivity and Capability Fund (CPCF) is also applicable to locals as well as permanent residents, to defray part of the course fees.

<table>
<thead>
<tr>
<th>Familiarisation Courses for CoreTrade Foremen</th>
<th>Familiarisation Courses for CoreTrade Tradesmen</th>
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<tbody>
<tr>
<td>1. Electrical Wiring Installation</td>
<td>1. Hydraulic Excavator Operation</td>
</tr>
<tr>
<td>2. Plumbing and Pipefittings</td>
<td>2. Telescopic Handler Operation</td>
</tr>
<tr>
<td>3. Steel Reinforcement</td>
<td>3. Plumbing and Pipefittings</td>
</tr>
<tr>
<td>4. Tiling</td>
<td>4. Electrical Wiring Installation</td>
</tr>
<tr>
<td>5. Waterproofing</td>
<td>5. Tiling</td>
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Please refer to the BCA Academy website at www.bcaa.edu.sg

FOR MORE INFORMATION

欲知更多详情 请浏览新加坡建设局学院网页 www.bcaa.edu.sg
RIDE ON THE PRODUCTIVITY WAVE
BY SIGNING UP FOR THESE COURSES

CONSTRUCTION PRODUCTIVITY AND CAPABILITY FUND (CPCF) COURSES

> Certificate in Interior Finishing Coordination
> Certificate in Pavement Construction and Maintenance
> Certificate in Precast Concrete Construction Supervision
> Certificate in Waterproofing Supervision
> Certificate in Building Measurement
> Certificate in Geotechnical Instrumentation for Supervisors
> Certificate in Levelling and Setting Out
> Certificate Course for Structural Steel Supervisors
> NBQ in Project Supervision
> Higher NBQ in Project Supervision
> Advanced NBQ in Project Supervision
> NBQ in Supervision and Coordination of M&E Works
> Higher NBQ in Supervision and Coordination of M&E Works
> Advanced NBQ in Supervision and Coordination of M&E Works
> NBQ in Operation & Maintenance
> Higher NBQ in Operation & Maintenance
> Advanced NBQ in Operation & Maintenance

16 NEW COURSES ARE NOW AVAILABLE.
UP TO 50% TO 80% OF THE TRAINING COST CAN BE SUBSIDISED UNDER THE CPCF SCHEME.

The additional courses are:

Certificate courses (PMETs)
> Certificate course in BIM Modelling
> Certificate course in BIM Management
> Project Management for Professionals in the Building and Construction Industry (in collaboration with SPM)
> Construction Productivity Management (in collaboration with SCAL)
> Design of Precast Concrete Structures for Engineers
> Workshop on Site Management of Precast Concrete Construction

Trade Diplomas (Foremen / Supervisors)
> Structural Steel Supervision
> Reinforced Concrete Supervision
> Plumbing Technology
> Electrical Technology

Certificate courses (Tradesmen / Foremen)
> Builders Cert in Plumbing and Pipefitting
> SEC(K) in Precast Concrete Components Erection
> SEC(K) in Structural Steel Fitting
> SEC(K) in Interior Drywall Installation
> System Formwork Training
> Mechanical Elevated Work Platform

FOR ENQUIRIES, PLEASE CONTACT:

BCA ACADEMY
TEL: 6248 9999  EMAIL: bca_academy@bca.gov.sg
CONSTRUCTION PRODUCTIVITY AND CAPABILITY FUND (CPCF)

TECHNOLOGY ADOPTION

MECHANISATION CREDIT (MECHC) SCHEME
Provides assistance to companies to defray up to 50% (S$100,000) of machinery cost

PRODUCTIVITY IMPROVEMENT PROJECT (PIP) SCHEME
Provides assistance to companies to defray up to 70% (S$1 million) of the cost for adopting more productive work processes

BUILDING INFORMATION MODELLING (BIM) FUND
Provides assistance to companies to defray up to 50% (S$105,000) of the cost for incorporating BIM into their work processes

For more information, please call the CPCF toll-free hotline at 1800-325 5050 or visit http://www.bca.gov.sg/CPCF/cpcf.html