

**Construction Industry Council**

**Committee on Productivity**

Meeting No. 003/19 of the Committee on Productivity (Com-PRO) was held on 18 September 2019 (Wednesday) at 2:30pm in Board Room, 38/F, COS Centre, 56 Tsun Yip Street, Kwun Tong, Kowloon, Hong Kong.

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Summary Notes of the Com-PRO Meeting No. 003/19:

| <b>Agenda Item</b> | <b>Paper</b>     | <b>Major Resolutions / Progress Highlights</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| 3.1                | CIC/PRO/M/002/19 | <b>Confirmation of Minutes of the Previous Meeting</b><br>Members confirmed the minutes of the Com-PRO Meeting No. 002/19 without any amendment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 3.2                | -                | <b>Matters Arising from the Previous Meeting</b><br><b>Item 2.2:</b><br>Item 1.2: The Secretariat presented the online dashboards for displaying the endorsed key performance indicators (KPI). Members commented that the labels used to describe the statistical data itself should be clearly presented and self-explanatory. The Secretariat would prepare a list of frequently asked questions for general enquiries.<br><br>Item 1.4: The Secretariat was working with the Hong Kong Federation of Electrical and Mechanical Contractors with a view to engaging a consultant to conduct a study to improve productivity for E&M trades in three major aspects, viz. fitness for purpose, advanced construction technologies, and Design for Manufacture and Assembly (DfMA). The study would aim to consolidate thoughts of contractors and consultants to develop modular templates for different types of projects and improve coordination and communication among different trades.<br><br><b>Item 2.3:</b> Members had no objection to the proposal that the research entitled “Development of an Appraisal Framework for Assessing Prefabrication and MiC Content for Buildings in Hong Kong” was |

| <b>Agenda Item</b> | <b>Paper</b> | <b>Major Resolutions / Progress Highlights</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                    |              | <p>conducted by Ir Prof. Joseph MAK in his capacity as the Immediate Past Chairman of the Materials Division of the Hong Kong Institution of Engineers. The amount of funding sought was reduced to HK\$600,000. This 6-month research project commenced on 15 August 2019.</p> <p><b>Item 2.4:</b> Members noted that the budget of Com-PRO for 2020 was reduced from HK\$9.8 million to HK\$6.1 million after Construction Industry Council (CIC)’s internal financial assessment.</p> <p><b>Item 2.5:</b> The Expert Group on Construction Robotics and Automation Systems Accreditation Scheme was established. The draft assignment brief for the consultancy study would be reviewed by the Expert Group. Members were reminded to join the B2B matching on emerging construction technologies jointly organised by CIC and Hong Kong Science and Technology Parks Corporation to be held on 4 October 2019.</p> <p><b>Item 2.6:</b> The Secretariat updated the progress of the Construction Innovation Expo 2019. 137 applications for booth / exhibition space had been received. Most of the invited speakers for the International Conference on DfMA, Robotics and Automation had accepted the invitation. The official website had been launched and the registration system for visitors and conference attendees would be ready shortly.</p> <p><b>Item 2.7:</b> The Secretariat reported that two returns on regulatory / specification requirements, standards and practices that would affect on-site work progress and productivity were received. The Secretariat would examine these cases and advise Com-PRO later on the follow-up work required.</p> |
| 3.3                | -            | <p><b>3-year Action Plan on DfMA Adoption in the Hong Kong Construction Industry</b></p> <p>The Secretariat reported on the progress of the DfMA Alliance (the Alliance), including application status of members, events organised and targets achieved. Mr. Tim HALL suggested to maximise the impact of the Alliance and to accelerate DfMA implementation in the following key areas, viz. industry engagement and benchmarking, tackling technical and policy issues, uplifting knowledge and skills, and developing a “platform approach”.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| <b>Agenda Item</b> | <b>Paper</b>                          | <b>Major Resolutions / Progress Highlights</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                    |                                       | <p>Members suggested to prepare a proposal with a detailed action plan aiming to achieve some targets on offsite construction (in terms of % projects and other suitable KPIs). This proposal should be submitted to the Government for soliciting their support and introducing facilitating measures, such as provision of temporary storage areas and enabling incentives.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 3.4                | CIC/PRO/P/008/19<br>(for information) | <p><b>Proposal on Hong Kong Product Certification Scheme for Reinforcing Steel Products</b><br/>Mr. TUGRUL and Mr. YAP from CARES proposed a Hong Kong Product Certification Scheme (the Scheme) for reinforcing steel products to develop a more effective and efficient reinforcing steel supply chain for the Hong Kong construction industry.</p> <p>Members commented on the need for robustness and data security of the cloud system to be used in the Scheme, a Scheme owner, traceability of steel materials from their origin to the construction site, and assessment of the financial impact on current stakeholders. CARES would take into account Members' comments in the preparation of a full proposal.</p>                                                                                                                                                                                                              |
| 3.5                | CIC/PRO/P/009/19<br>(for approval)    | <p><b>Progress Update on the Research Project entitled “Smartphone as Next-generation Monitoring Devices for Construction-Induced Vibrations and Noise (Phase 1)”</b><br/>Dr. Songye ZHU from The Hong Kong Polytechnic University presented the findings of Phase 1 and the key objectives of Phase 2 of the research project.</p> <p>The sensor sensitivity of a smartphone for monitoring of construction-induced vibration and noise had been examined through laboratory experiments and field measurements in Phase 1. The measurement results obtained from using the smartphone were found to be satisfactory. An interactive platform would be developed in Phase 2 for real-time monitoring and assessment of vibration and noise at sites. This platform could enable automatic data transmission, online cloud computing, fast data sharing and reporting. Phase 2 would be an 18-month project at a cost of HK\$625,600.</p> |

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|                    |                                      | Members endorsed the findings of Phase 1 and approved to proceed to the Phase 2 of this research project. The researcher was requested to provide the mobile application to Members for trial use and to examine the feasibility of using the smartphone for measuring blasting vibration to achieve a reasonable accuracy.                                                                                                                                                                                                                                                                                                                                                                                 |
| 3.6                | -                                    | <p><b>Progress Update on the Research Project entitled “BIM-based Rebar Design Optimisation and Prefabrication Automation”</b></p> <p>Dr. Jack CHENG from the Hong Kong University of Science and Technology presented the progress of this research project, which aims to develop a highly specialised BIM-based platform for automated clash-free design optimisation and prefabrication of steel rebar in typical reinforced concrete building structures. Members noted that the platform would only be applicable to building projects and pointed out the importance of converting the model into 2D drawings which are for approval by the regulator. Dr. CHENG took note of Members’ comments.</p> |
| 3.7                | CIC/PRO/P/010/19<br>(for discussion) | <p><b>Effective Implementation of Research Outcomes into Construction Practice</b></p> <p>This paper proposed strategies and measures to generate useful research outcomes for adoption in construction practice for Members’ deliberation. These include (a) formulating an R&amp;D programme; (b) strengthening the role of CITAC and establishing a Pre-acceptance Panel for the implementation of research outcomes or innovations; (c) establishing a CIC R&amp;D Knowledge Hub; and (d) incentivising impactful R&amp;D projects. Members were requested to provide feedback to the Secretariat.</p>                                                                                                  |
| 3.8                | -                                    | <p><b>Any Other Business</b></p> <p>There was no other business.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 3.9                | -                                    | <p><b>Tentative Date of Next Meeting No. 004/19</b></p> <p>The next Meeting would be held in December 2019. The Secretariat would inform Members once the meeting details are confirmed.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

*Remarks: The mentioned papers discussed at the Committee on Productivity Meeting and / or the full minutes can be made available to Council Members by the CIC Secretariat upon request.*