## Buletin IKA PENGAJIAN KEJURUTERAANAWAM

UNIVERSITI TEKNOLOGI MARA CAWANGAN PULAU PINANG

**EDISI 2022** 



Cawangan Pulau Pinang Kampus Permatang Pauh



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They started their project by gathering all the information and drawing plans from the assistant architectural officer of BPF, Siti Naidia Binti Baharom. After that, they had to plan and organise their site visit for the building inspection. Students were also given an opportunity to handle equipment to run a simple, non-destructive test like Rebound Hammer test for the assessment of compressive strength, and uniformity of concrete and used the measuring tape to measure the dimension of cracks. Then, the dilapidation survey findings must be explained and discussed with the engineer from BPF, Mohd Saiful Nizam Mohammad Ali, through the Mega Project slide presentation. The findings presentation is a must to adapt significant problems arising from interactions between wide-ranging or conflicting technical, engineering, or other issues. Finally, students then proposed relevant and suitable mitigation measures that should be taken for each defect in data. Justification is given on the relevance of the mitigation methods and their significant consequences to society and the environment, which are also characterised by the difficulty of prediction and mitigation.

## SHARING TECHNICAL SESSION ON GROUND PENETRATING RADAR USAGE FOR REBAR CORROSION DETECTION AND SEVERITY ESTIMATION

## BY Ts. SYAHRUL FITHRY SENIN WITH IEM PENANG BRANCH

The Institution of Engineers Malaysia (Penang Branch) hosted a webinar on 16 March 2023 featuring a talk on Ground Penetrating Radar (GPR) application on rebar corrosion identification and its severity estimation. The speaker of the webinar was Ts. Syahrul Fithry Bin Senin, a senior lecturer from the Centre of Civil Engineering Studies at UiTM Penang Branch. The talk lasted for two hours, and the event was attended by around 80 participants, including civil and structural engineering consultants, contractors, and institutions of higher learning.

During the webinar, Ts. Syahrul Fithry emphasized the importance of structural monitoring due to rebar corrosion in reinforced concrete structures. He discussed the use of GPR, which is portable and cost-effective for large space applications, to detect and quantify corrosion damage on artificial rebars without damaging the surrounding concrete material. Ts. Syahrul Fithry demonstrated the use of GPR to perform structural monitoring and highlighted its potential benefits in preventing structural failure due to rebar corrosion.

The webinar was sponsored by Telestructures Industries Sdn. Bhd. and ended with a series of questions and answers between the participants and the speaker. The audience found the talk informative and engaging, with many participants expressing their interest in using GPR for corrosion monitoring in their own projects.

The event was concluded by the awarding of a certificate of appreciation to Ts. Syahrul Fithry from the IEM Penang Branch Chairman, Ir. Benard Lim Kee Weng. The certificate recognizes Ts. Syahrul Fithry's valuable contribution to the engineering community by sharing his knowledge and expertise on GPR applications for rebar corrosion identification and its severity estimation.

In conclusion, the webinar on GPR application for rebar corrosion identification and its severity estimation was a great success. Ts. Syahrul Fithry's talk was informative and engaging, and the event was attended by a diverse range of professionals from the engineering industry. The use of GPR in corrosion monitoring has great potential in preventing structural failure and ensuring the safety and longevity of reinforced concrete structures.





