



AI Automated Dental Charting System

EM2AI is a Medical Technology startup based in Singapore and is part of the Q&M Dental Group. They focus on providing a solution that supports the best dental practices by elevating dental experiences for everyone through ethical medical practices and evolutionary machine learning.



“The AI solution developed was very easy to use and it saved our dentists tremendous time and effort. I would like to applaud the AISG team too for their professionalism and support, always keeping the project timeline on track. If you have a problem statement and you would like to use AI to solve it, 100E is the best programme to build an MVP!”

*Ryan San
CEO/Co-founder*

BACKGROUND

- Lack of clinical decision support and no standardised treatment plan - risk of overtreatment, undertreatment and mistreatment
- Inefficient use of multiple programmes which are not integrated with each other
- Undetected pathologies may result in more extensive treatment and higher costs for patients
- Risk of inconsistency across dentists when diagnosing dental pathologies

BUSINESS CHALLENGE

How can EM2AI develop an AI model to automate dental charting and help dentists detect disease from dental X-rays, and recommend a treatment plan for the patient?

AI SOLUTION DEPLOYED

An AI model was developed to detect four OPG (Orthopantomogram / Full-Mouth) X-ray dental conditions namely tooth numbering, caries, bone loss problem and missing teeth. The model would automatically convert identified conditions as well as healthy teeth into a full dental chart to facilitate review by a dentist.

OUTCOMES



Deployed to more than 150 dental clinics in Singapore and Malaysia



Received positive feedback from dentists – time saved as they can chart patient’s teeth automatically in less than a minute as compared to 5-10 mins before



Lower the chances of any undetected pathology, achieve a more comprehensive treatment plan for the patient and raise the patient’s awareness of dental health