




CURRENT POSTGRADUATE STUDENT

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PROGRAM	MPhil in Surgery	
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FIELD OF RESEARCH / INTENDED THESIS TITLE	Medical Robotics	
KEYWORDS FOR RESEARCH	GI Tract Inspection, Endoscope, Magnetic Manipulation, Computer-assisted Surgery	
RESEARCH STUDY:		
<p>The flexible endoscope has been widely used in medical practice for its high diagnostic accuracy and high reliability. However, several limitations still remain, such as the difficulty of advancing it for diagnosis or intervention and the discomfort of patients induced by possible tissue damage and deformation of the colon wall. In order to tackle these problems, we proposed a novel electromagnetic driven soft-tethered endoscope system for gastrointestinal tract screening and primary therapy. This system maintains the advantages of conventional flexible endoscope and greatly reduces the patients' pain in colon inspection procedure, since the direction of the endoscope head can be manipulated by the controlled magnetic field instead of forced bending by external force and the silicone tether is soft and slim enough to fit the complex structure of the colon.</p>		
CONFERENCE TITLE / ABSTRACT / POSTER:		