ICEE 2013 Invited Speech:

Wireless Capsule Endoscopy

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Abstract:

Wireless capsule endoscopy (WCE) is a technique in which an ingestible electronic diagnostic capsule capable of working wirelessly is swallowed. It is superior to traditional endoscopy as WCE lacks all the limitations of traditional wired diagnostic tools, such as cable discomfort and the inability to examine highly convoluted sections of the small intestine. This paper reviews historical developments of this technique and state-of-the-art WCE designs. Main features of existing devices are also investigated in terms of their diagnostic capabilities and limitations, as well as hardware designs. Current research and potential directions to improve WCE technology are discussed.