

Medical Device Development for Thailand's Aging Society

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Abstract

Thailand faces a critical healthcare crisis as non-communicable diseases (NCDs) now account for over 70% of all deaths in the country, a situation further complicated by its rapidly aging population. This demographic shift places unprecedented strain on the healthcare system, as elderly patients often require more frequent and complex medical interventions, particularly for conditions like diabetes, cardiovascular diseases, and cancer. To address these challenges, Thailand must reduce its heavy dependence on imported medical devices and technology by developing robust local manufacturing capabilities. Establishing domestic production of essential medical devices would not only improve healthcare accessibility and affordability but also strengthen the country's medical supply chain resilience. This presentation covers various medical devices developed at INNOFAB, Chiang Mai University, from rehabilitation devices designed to support Thailand's aging population to diagnostic tools for cancer detection.

Keywords: NCD, Aging society, Medical devices

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Education History

[Doctorate]	2003	Department of Electrical Engineering and Computer Science, Case Western Reserve University
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Professional Background

2018-Present	Professor at the Department of Mechanical Engineering, Chiang Mai University, Thailand
2005-2018	Associate Professor at the Department of Mechanical Engineering, Chiang Mai University, Thailand
2004-2005	Lecturer at the Department of Mechanical Engineering, Chiang Mai University, Thailand
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Selected Publications

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