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INFORMATION ON RESEARCH RESULTS

1. General information:

- Project title: ‘Study on Scientific and Practical Foundations and Propose Solutions for Managing Urban Development towards Smart City’.
- Code number: MOET03.
- Principal Investigator: Dr. Nguyen Ngoc Hieu.
- Implementing institution: Vietnamese German University.
- Duration: From 07/2017 to 12/2018.

2. Objectives

The study aims to develop scientific foundation for managing integrated development, assess opportunities and alternative solutions for smarter managing development in Ho Chi Minh City.

3. Originality and creativities:

The research **synthesized theories and updated practices** on about managing smarter urban growth to match the development context of Vietnam.

Alternatives for building more integrated institutional platforms for urban development management are discussed in Ho Chi Minh City development context. Data from institutional analyses, in-depth interviews with managerial authorities from eight component Departments and Project Management Units, group discussions and seminars with academic scholars during two conferences and three seminars were compiled to propose **institutional frameworks and platforms for improving integration of urban development management** among various stakeholders operating in both District and City levels and private sector.

Especially, from the proposed institutional framework, we **developed and assessed two solutions** on (1) Report ‘*Assessment of Decentralised Flood Reduction Approach for a Neighborhood in District 2, Ho Chi Minh City*’ (to verify the technical solution opportunities with local community and check the hydraulics modelling for the drainage of rain water); and (2) Proposal of research to develop a new tool to apply ‘*Adaptive Development Control to Transport Infrastructure Level of Service*’ in Ho Chi Minh City Department of Urban Planning and Architecture (collaborating with Ho Chi Minh City Department of Transport).

4. Research results

The research has fulfilled all tasks and has submitted most products planned in the research agreement, including:

- Research results has systemized knowledge of development management towards smart city from various sources including international and national publications as well as interview with public authorities, academic scholars, and local community.
- Scientific products (03 National Journal Articles, 03 International Conference Papers, 03 National Conference Papers), educational product (01 on-going master thesis), and 01 research proposal in the collaboration with city-level authority (Ho Chi Minh City Department of Urban Planning and Architecture).
- Research products will continue to be developed and transfered to universities, research institutions, and public authorities in order to support and improve capacity of stakeholders in the field of urban development management.

5. Products:

- Scientific products:

- [1] 01 National Journal Article “Institutional and Governance Renovation towards Smart City Development” published in ‘The Builder’ Journal Vol. 03-04, 2018 and Vol. 05-06, 2018. Author: Nguyen Ngoc Hieu.
- [2] 01 National Journal Article “Smart City - From the Perspective of Systems Structure and Platform for Innovative Ecosystem” published in ‘Journal of Construction Planning’ Vol. 94, 2018. Author: Nguyen Ngoc Hieu.
- [3] 01 National Journal Article “Discussions on ‘Compact’ City Development in Viet Nam” published in ‘Journal of Construction Planning’ Vol. 94, 2018. Author: Nguyen Ngoc Hieu.
- [4] 01 Conference Paper “Institutional Platform for Development Management towards Smart City” was published in Proceeding of the International Conference “Open Data for Binh Duong Smart City Development” on 27th November 2017 in Binh Duong Province, Vietnam. Author: Nguyen Ngoc Hieu.
- [5] 01 Conference Paper “Integrated Development Management for a Smarter Region, The Case of Hochiminh City” was published in Proceeding of the International Conference “The 14th Asian Urbanization International Conference” on 12th January 2018 in King Mongkut University, Thailand. Authors: Nguyen Ngoc Hieu and Tran Hoang Nam.
- [6] 01 Conference Paper “Governing Challenges and Some Probable Solutions for Smarter Growth in Hochiminh City” was published in Proceeding of the International Conference “Strategies and Solutions to Smart City Development” on 23th-25th August 2018 in Ho Chi Minh City University of Architecture, Vietnam. Authors: Nguyen Ngoc Hieu and Tran Hoang Nam.

- [7] 01 Conference Paper “Challenges and Strategic Options for Development Management towards Sustainable Development in Ho Chi Minh City” published in Proceeding of the National Conference “Development Vision for Ho Chi Minh City towards Livable City” on 17th November 2017 in Ho Chi Minh City Institute of Development Studies, Vietnam. Authors: Nguyen Ngoc Hieu and Tran Hoang Nam.
- [8] 01 Conference Paper “Demand and Motivation for Integrated Development Management towards Smart City in Ho Chi Minh City Region” was published in Proceeding of the National Conference “Demand and Motivation for Integrated Development Management towards Smart City in Ho Chi Minh City Region” on 19th January 2018 in Ho Chi Minh City Institute of Development Studies, Vietnam. Authors: Nguyen Ngoc Hieu and Tran Hoang Nam.
- [9] 01 Conference Paper “Opportunities and Alternatives for Integrated Development Management towards Smart City in Ho Chi Minh City Region” was published in Proceeding of the National Conference “Opportunities and Alternatives for Integrated Development Management towards Smart City in Ho Chi Minh City Region” on 07th June 2018 in Ho Chi Minh City Institute of Development Studies, Vietnam. Authors: Nguyen Ngoc Hieu, Tran Hoang Nam, Vo Dao Chi, and Tran Quang Dao.
- [10] 01 National Journal Article “Assessing Decentralized Flood Reduction Approach, A Case Study in Binh Trung Tay Neighborhood, District 2, Hochiminh city” to be published in ‘The Builder’ Journal Vol. 01-02, 2019. Author: Nguyen Ngoc Hieu, Trinh Thanh Tu, Ho Van Hoa, and Tran Hoang Nam.

- Educational product:

- [1] 01 student is writing the Master Thesis “Application of Decentralised Flood Reduction Approach for Developing Low Elevated Suburb of Ho Chi Minh City”, Technical University of Darmstadt. Name of student: Trinh Thanh Tu; Intake: SUD 2015.

- Product applications:

- [1] 01 Report on Scientific and Practical Foundation for Development Management towards Smart City.
- [2] 01 Report on Proposing Solutions for Development Management towards Smart City.

6. Transfer alternatives, application institutions, impacts and benefits of research results:

- Transfer alternatives:

Transfer research results to research and managing institutions free of charge.

- Application Institutions:

Ho Chi Minh City People's Committee, Ho Chi Minh City Department of Natural Resources and Environment, Ho Chi Minh City Department of Science and Technology, Ho Chi Minh City Department of Urban Planning and Architecture, Ho Chi Minh City Department of Construction, Ho Chi Minh City Department of Transport, Ho Chi Minh City Department of Information and Communication, Ho Chi Minh City Steering Center of the Urban Flood Control Program, and Urban Development Agency - Ministry of Construction, and Binh Duong Smart City Office.

- Impacts and benefits for education and training:

Develop human resources in the fields of urban planning and sustainable urban development.

- Impacts and benefits for science and technology:

Develop theoretical background for building institutional platform supporting smarter urban growth based-on integrated, strategic, and collaborative approaches.

- Impacts and benefits for socio-economic development:

Assess opportunities for implementing integrated and multi-sector development management tools in the case of traffic congestion reduction in the city core and urban flooding reduction in the newly urbanized area of Hochiminh city.

Implementing institution
(sign, write full name, and stamp)



Vietnamese - German University

25th December 2018
Principal Investigator

A handwritten signature in blue ink, which appears to read 'Nguyen Ngoc Hieu', is written over a faint, light blue watermark of the same name.

Nguyen Ngoc Hieu