Course Detail

1. Course Title: Doctor of Philosophy Program in Smart City Management and Digital Innovation

2. Degree: Doctor of Philosophy (Smart City Management and Digital Innovation) / Ph.D. (Smart City Management and Digital Innovation)

3. Academic Institution: Naresuan University,

School of Renewable Energy and Smart Grid Technology (SGtech)

4. Duration: Three (3) Years

5. Language: ☐ English ☑ Bilingual (Thai-English)

6. Background and Rational:

Developing opportunities and social equality can be achieved by applying digital technology in city management and providing facilities to make it a safe and convenient smart city for all with thorough and environmentally friendly.

Hence, to promote city potential and opportunities development through participation and investment of the private sector, communities, and civil society. It is encouraging local administrative organizations to be primarily responsible for the quality of the environment and the quality of life of the people in the city and reducing the disparity between the population living in urban areas. Therefore, it must have knowledge and understanding of the various components of a smart city that consist of Smart Economy, Smart Mobility, Smart Energy, Smart Environment, Smart Governance, Smart People, and Smart Living.

The program aims to encourage and develop our students to create new knowledge and innovations that can find the exponential technology solutions and emerge Smart City utilization for economy, and society of the country, region, and the world effectively.

7. Objectives:

7.1 Demonstrate knowledge and skills related to:

- ○ Information system for smart city management

○ Utilization of technology and innovation to increase the efficiency of service and smart city management

○ Digital capabilities, digital platform and organizational digital innovation planning

7.2 Able to create new knowledge and innovation for smart city development.

7.3 Able to perform the job task efficiently and conduct in-depth research.

7.4 Seek life-long training and creative researches for smart city development.

7.5 Full of ethics, morals and social responsibility.

8. Course Synopsis and Methodology:

The course will be taught in English. In addition, the students must write a thesis emphasizing high-quality research.

Structure of the Program

1. **Credit Requirement.***

Requirements	Option 1.1
Coursework	-
- Core Courses	-
- Electives	-
Required Non-Credit courses	3
Dissertation	48
Total	48

*** Minimum credits required.**

2. **Required Non-Credit Courses.**

Requirements	Option 1.1	
	Course No.	Credits
Seminar 1	854671	1
Seminar 2	854672	1
Seminar 3	854673	1
Total	3	3

3. Thesis/Independent Study Credit Requirements.

Requirements	Option 1.1	
	Course No.	Credits
Dissertation 1	854681	6
Dissertation 2	854682	6
Dissertation 3	854683	9
Dissertation 4	854684	9
Dissertation 5	854685	9
Dissertation 6	854686	9
Total	6	48

4.1 Study Plan

The first year

- First Semester

Requirements	Option 1.1	
	Course No.	Credits
Seminar 1	854671	Non-Credit
Dissertation 1, Type 1.1	854681	6
Total	2	6

- Second Semester

Requirements	Option 1.1	
	Course No.	Credits
Dissertation 2, Type 1.1	854682	6
Total	1	6

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The second year

- First Semester

Requirements	Option 1.1	
	Course No.	Credits
Seminar 2	854672	Non-Credit
Dissertation 3, Type 1.1	854683	9
Total	2	9

- Second Semester

Requirements	Option 1.1	
	Course No.	Credits
Dissertation 4, Type 1.1	853684	9
Total	1	9

The third year

- First Semester

Requirements	Option 1.1	
	Course No.	Credits
Seminar 3	854673	Non-Credit
Dissertation 5, Type 1.1	854685	9
Total	2	9

- Second Semester

Requirements	Option 1.1	
	Course No.	Credits
Dissertation 6, Type 1.1	854686	9
Total	1	9

4.2 Course Content/Study Topic:

854671   **Seminar 1**   **1(0-2-1)**
        Emphasize on encouraging students to learn how to search, criticize the articles and published papers, and practice the oral presentation on selected topics of current research in smart city management and digital innovation in order to develop it into a dissertation title

854672   **Seminar 2**   **1(0-2-1)**
        Presentation and discussion of current research topics related to smart city management and digital innovation with precise topic and content

854673   **Seminar 3**   **1(0-2-1)**
        Presentation and discussion of current research topics related to smart city management and digital innovation with precise topic and content

854681   **Dissertation 1, Type 1.1**   **6   credits**
        Study the Elements of thesis, review literature and related research, and determine thesis title

854682   **Dissertation 2, Type 1.1**   **6   credits**
        Develop concept paper and prepare the summary of literature and related research synthesis

854683   **Dissertation 3, Type 1.1**   **9   credits**
        Develop research instruments and research methodology, and prepare thesis proposal in order to present it to the committee

854684   **Dissertation 4, Type 1.1**   **9   credits**
        Collect data and report the progress of the thesis to the thesis advisor

854685   **Dissertation 5, Type 1.1**   **9   credits**
        Analyze data and prepare a draft of the thesis

854686   **Dissertation 6, Type 1.1**   **9   credits**
        Prepare full-text thesis and research article in order to get published according to the graduation criteria

5. Graduation Condition: In accordance with the Graduate School Rules and Regulations.

6. Applicant Qualification:

<u>Qualification for Admission</u>

This program is open to applicants who have a degree in any field with experience in the field of Smart City Management and Digital Innovation or occasionally grant at the discretion of the Program Committee.

7. Document Required:

Applicant can fill required information in the application form and send it with these enclosed document:

1. The Application Form affixed with colored photographs.

2. A letter of recommendation or a reference

3. A copy of Educational certificate

4. A copy of an Academic transcript

5. A copy of Personal Identity Card or Official Staff Card.

6. A copy of English languages certificates e.g. TOEFL, IELTS, TOEIC or CU-TEP or NULC (if any)

7. Document to certify change of name or surname and/or marital status (if any).

8. Other supporting document

8. Contact:

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