

INFORMATION PAGE OF THE DOCTORAL THESIS

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- Supervisors:
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- Thesis title: Research on proposing solutions for management of urban drainage network in the center of Hai Phong city
- Major: Urban and Construction Management
- Code: 9580106
- Training institution: Hanoi Architectural University

I. Research results

- Give an overview of research and issues concerning urban drainage network management. Analyze and propose scientific foundations for selecting solutions for urban drainage network management. Investigate and propose a model for technical management of urban drainage network in the center of Hai Phong City through methods of improving reliability, reducing corrosive exposure, forecasting, predicting, and supporting decisions on maintaining prediction of possible drainage network failures.

- Investigate and propose an information system model for managing the urban drainage network in the city center of Hai Phong. Propose detailed steps for modeling the management information system of the urban drainage network in the center of Hai Phong city, and assess the effectiveness of the model's application in the city's central urban area.

- Investigate and propose a model to renovate and edit the organizational chart of drainage enterprise in Hai Phong to be more suitable with the drainage network management information system, in order to improve the management efficiency, create and store large amounts of data and assets, incidents as well as the development history of the drainage network management information system.

- Investigate and recommend solutions to improve mechanisms, policies, and legal corridors for state management of the drainage network in particular, and the information system in general. Propose steps for building construction costs, salary costs for consulting activities to expand the drainage network management information system, and a BIM model for technical infrastructure.

II. New contributions of the thesis

1. Proposing solutions for technical management:
 - Solutions for incident information management of drainage networks on the basis of improving reliability in drainage activities and by reducing biogas corrosion exposure.
 - Proposing the model of management information system of drainage networks.
 - Solutions to improve drainage sewers, rivers, air-conditioning reservoirs, and aqueducts to prevent tidal intrusion.
2. Proposing solutions for state management:
 - Proposing to renovate and adjust the organizational and management structure of drainage enterprises.
 - Proposing to improve the organizational structure of state management and policy mechanism in the management of drainage network in the center of Hai Phong city.