



Marine Coastal and Delta Sustainability for Southeast Asia

610327-EPP-1-2019-1-DE-EPPKA2-CBHE-JP



# HYDROLOGICAL MODELLING

**Assoc. Prof. Tran Van Ty**  
**Dr. Huynh Vuong Thu Minh**

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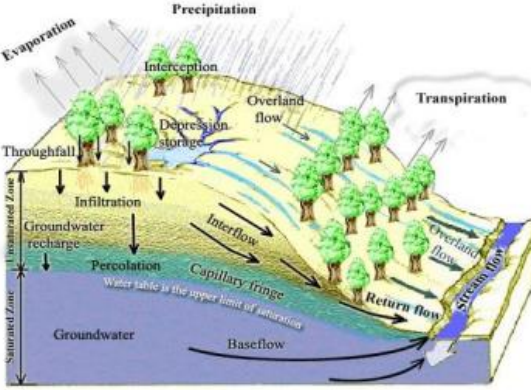
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## Hydrological Modelling (3 ECTS)

Lecturer: Dr. Tran Van Ty  
Dr. Huynh Vuong Thu Minh



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- Level Master
- This document is available in English
- Target student audiences Master in Marine Engineering Engineering



# SUMMARY

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The course is designed to provide learners with knowledge and skills in conceptual modeling, physical principles of the water cycle, hydrological systems, and the steps involved in developing hydrological modeling. The course also covers deterministic and stochastic hydrological models, as well as statistics model application.





# LECTURE NOTE CONTENTS

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## **Topic 1: Hydrological model concept**

General and applied knowledge related to hydrographic model

## **Topic 2: Deterministic model (5t)**

General knowledge of basic concepts and calculation methods of all kinds of hydrological problems.

## **Topic 3. Random pattern (5t)**

General and applied knowledge related to hydrographic model.

## **Topic 4. Statistical analysis in Hydrological calculation (5t)**

General and applied knowledge related to hydrographic model.

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# LECTURE NOTE CONTENTS

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## **Practice Lessons 1. HEC-HMS model (10t)**

Teamwork, presentation and reporting skills. General evaluation and analysis skills.

## **Practice Lessons 2. Artificial intelligence network model ANN (5t)**

Teamwork, presentation and reporting skills. General evaluation and analysis skills.

## **Practice Lessons 3. Statistical analysis (5t)**

Teamwork, presentation and reporting skills. General evaluation and analysis skills.





# THANK YOU

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