

## EFDC\_Explorer8.1/EFDCPlus

### Advanced Modeling Course Agenda

### Coastal, Sigma Zed, and Water Quality Modeling

28-30, Sep, 2016 – Seoul, Korea

Note that this training course is Level 2 and assumes a basic understanding of the EFDCPlus / EFDC\_Explorer Modeling System. Those people who wish to participate that have never used EFDC\_Explorer are encouraged to work through the online video tutorials and example models available on our website. For more information please contact us at: [ee\\_training@ds-intl.biz](mailto:ee_training@ds-intl.biz)

Day 1 – Session 1	Welcome, Introduction (Gunhee & Prof. Seo) Introduction to EFDC/EFDC_Explorer8.1 Modeling System (Dr Lam) Installation of EE8.1, CVLGrid1.1 and Copying Training Course files (Duy).
Day 1 – Session 2	Introduction to CVLGrid1.1 (Duy) Hands on with CVLGrid1.1
Lunch Break	
Day 1 – Session 3	Introduction to Coastal Modeling (Dr Lam) Hands on with Coastal Model (2D Hydrodynamic Model)
Day 1 – Session 4	Hands on with Coastal Model (3D Hydrodynamic and Transport Model)
Day 2 – Session 1	Hands on with Coastal Model (Linkages with Wave Models)
Day 2 – Session 2	Advanced Post-processing
Lunch Break	
Day 2 – Session 3	EFDC+ Sigma Zed Vertical Layering System (Dr Lam) EFDC+ OMP Theory and Application
Day 2 – Session 4	Hands on with Sigma Zed
Day 3 – Session 1	WQ Theory (Prof. Seo)
Day 3 – Session 2	Hands-on with WQ Model (Prof. Seo)
Lunch Break	
Day 3 – Session 3	Coastal Modeling (Prof. Kim)
Day 3 – Session 4	Q & A

## Level 2 Coastal, Sigma Zed and Water Quality Modeling Course Objectives

Objective 1: Overview of EFDC/EFDCPlus Sigma Zed Model Capabilities

- EFDCPlus Sigma Zed Theory
- Differences between SGZ and Sigma Stretch
- Zonation and Layering Options

Objective 2: Overview of EFDC/EFDCPlus Coastal Modeling Capabilities

- Coastal Modeling Concepts in EFDC
- Setting Harmonic Boundaries in EE and EFDC
- Linking to External Wave Models

Objective 3: Overview of EFDC\_Explorer Water Quality Capabilities

- EFDC Water Quality Theory
- EFDC Data Structure, Initial Conditions, Boundary Conditions
- EE User Interface for Water Quality Modeling
- Building and assigning WQ initial and boundary conditions

Objective 4: Hands on Modeling Practice

- Hands on with EFDC\_Explorer/ EFDCPlus Modeling System
- Creating models
- Providing solutions to user problems

Objective 5: Overview and Hands On with Grid Building Tool for EFDC

- Key Concepts in Curvilinear Grid Buildign
- Practical Solutions to Grid Problems using CVLGrid