

Minsik Kim

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EDUCATION

PhD	Yonsei University Department of Future Science and Engineering <i>MS-PhD combined course</i> <i>Advisor: Prof. Wonsuck Kim</i>	Mar. 2022-
BSc	Yonsei University Department of Earth System Science <i>Bachelor of Science in Earth System Science</i> <i>Cumulative GPA: 3.81/4.3</i>	Mar. 2013- Feb. 2019

RESEARCH INTEREST

Effect of mud on delta evolution
Delta restoration
Tidal morphodynamics

PUBLICATIONS

Kim, M., Chun, B., Chamberlain, E. and Kim, W. (2024). Enhanced mud retention as an autogenic mechanism for sustained delta growth: Insight from records of the Lafourche subdelta of the Mississippi River. *Sedimentology*. (DOI: 10.1111/sed.13230)

Nahm, W., Kim, W., **Kim, M.**, Park, BS., Han, M., Kim, S., Lim, HS., Choi., J., Jun, C. (2024). The potential of Municipal Solid Waste (MSW) layers as Anthropocene strata. *Episodes*, 47, 179-186. (DOI:10.18814/epiiugs/2023/02333)

Wu, C., **Kim, M.**, & Kim, W. (2023). Natural levees increase in prevalence in the backwater zone: Coastal Trinity River, Texas, USA: COMMENT. *Geology*, 51(6), e564-e564. (DOI: 10.1130/G51212C.1)

Kim, M., Shin, H., Nahm, W. H., & Kim, W. (2023). Dynamic Equilibrium Position Prediction Model for the Confluence Area of Nakdong River. *Economic and Environmental Geology*, 56(4), 435-445. (DOI: 10.9719/EEG.2023.56.4.435)

Kim, M., Kim, W., & Nahm, W-H. (2022). The effect of bottomset on fluviodeltaic land-building process: Numerical modelling and physical experiment. *Basin Research*, 34, 1763-780. (DOI: 10.1111/bre.12684)

INTERNATIONAL CONFERENCES

Kim, M., Nienhuis Y., and Kim W., 2024, Exploring spatiotemporal variations in sediment retention in delta evolution: A numerical experiment with Delft3D: Poster presentation at 37th International Geological Congress 2024, Busan, Republic of Korea, 25-31 Aug.

Kim, M., Chun B., Chamberlain E., and Kim W., 2022, Does the effect of sediment retention and bottomset accumulation lead the linearly prograding deltaic shoreline?: Poster presentation at 2023 International Conference on Fluvial Sedimentology, Riva Del Garda, Italy, 2-7 Jul.

Kim, M., Chun B., Chamberlain E., and Kim W., 2022, Does the effect of sediment retention and bottomset accumulation lead the linearly prograding deltaic shoreline?: iPoster presentation at 2022 Fall Meeting, AGU, Chicago, Illinois, 12-16 Dec.

Kim, M., Chun B., Chamberlain E., and Kim W., 2022, Does the effect of sediment retention and bottomset accumulation lead the linearly prograding deltaic shoreline?: Oral presentation at 2022 ISC, Beijing, China, 22-26 Aug. (Online)

Kim, M. and Kim, W., 2021, The effect of sand to mud ratio on fluviodeltaic land-building process: Numerical modeling and physical experiment: Poster presentation at 2021 Fall Meeting, AGU, New Orleans, Louisiana, 13 – 17 Dec.

Kim, M. and Kim, W., 2020, The effect of sand to mud ratio on shoreline progradation rate: Numerical modeling of a coupled fluviodeltaic topset to bottomset system: Abstract EP047-0004 presented at 2020 Fall Meeting, AGU, Online Everywhere, 1 – 17 Dec.

DOMESTIC CONFERENCES

Kim, M., Shin, H., Nahm, W.H., and Kim, W., Dynamic Equilibrium Position Prediction Model for the Confluence Area of Nakdong River: Poster presentation (PL-1) at 2023 Spring Meeting, KSEEG, Busan, 18-21 Apr.

Kim, M., Kim, W., Chun, B. 2022, Does the effect of sediment retention and bottomset accumulation lead the linearly prograding deltaic shoreline?: Oral presentation at 2022 Spring Meeting, KSEEG, Gwangju, 21 – 23 Jul.

Kim, M. and Kim, W., 2021, The effect of bottomset on fluviodeltaic land-building process: Numerical modeling and physical experiment: Poster presentation (PL-4) at 2021 Spring Meeting, KSEEG, Gyeongju, 23 – 24 Jul.

AWARDS AND HONORS

Merit Academic Paper Award [The effect of bottomset on fluvio-deltaic land-building process: Numerical modelling and physical experiment]	Jan. 2024
Convergence Research Proposal, 1st award, Department of Earth System Sciences, Yonsei University, Korea	Dec. 2020
The excellence in research award, Morphodynamics and Quantitative Stratigraphy Group, Yonsei University, Korea	Oct. 2020
Promising Geological Engineering Award, Engineering Geology Academy, Korea	Feb. 2019
Honors, Yonsei University, Korea	Feb. 2018

SCHOLARSHIP & RESEARCH GRANT

IAS postgraduate research grant (€1000)	July. 2023 ~ Feb. 2024
Excellent Paper Scholarship by Department of Earth System Sciences (1,000,000 won)	Jan. 2024
Head Professor Assistant Principal Scholarship (2,500,000 won)	May. 2023
Yonsei Collaboration research scholarship (2,000,000 won)	Sep. 2022 ~ Feb. 2022
Yonsei Collaboration research scholarship (1,000,000 won)	Jul. 2021 ~ Feb. 2022
Yonsei Global research grant (5,000,000 won)	May. 2022
Yonsei Junior Collaboration research group grant (3,000,000 won)	Jul. 2021 ~ Feb. 2022

TEACHING EXPERIENCES

Undergraduate Thesis (Haejong Choi) Effect of fluvial flow on barrier island retreat (Tank experiment)	
Undergraduate Thesis (Jihwan Ryu) Sediment grain size distribution in Gamcheon-Nakdong confluence delta	
Understanding of stratigraphy	Fall. 2020
✓ teaching assistant for understanding of stratigraphy class; taught basing interpretation of sequence stratigraphy and seismic section interpretation.	
Introduction to earth system sciences	Spring. 2020
✓ Teaching assistant for Introduction to earth system sciences; Explanation of exercise problems.	

LEADERSHIP EXPERIENCES

Representative Graduate Student, Department of Earth System Sciences, Yonsei University, Korea	Mar. 2021~ Feb. 2022
Assistant for university innovation project, Department of Earth System Sciences, Yonsei University, Korea	Mar. 2021~ Feb. 2022

FIELD EXPERIENCE

EMRD field trip for oil and gas development majors	2022.08.05 ~ 2022.08.27
✓ Structure geology (Thrust, Duplex, Fault propagation fold, Fault bend fold)	
✓ Sedimentology and Stratigraphy (Joseon Supergroup, carbonate rock, source rock and reservoir rock)	

Gam-Nakdong River confluence delta (2)	2022.09.26 ~ 2022.09.27
✓ Drone survey (3D model using Agisoft), Sediment sampling, Flow velocity measurement, Morphology analysis	
Gam-Nakdong River confluence delta (1)	2021.09.12 ~ 2021.09.14
✓ Drone survey, Trench, Sediment sampling, Flow velocity measurement, Morphology analysis	

FLUME EXPERIMENT

Assistance in 1D 1) flume experiment (autogenic process), 2) bedform experiment, 3) 3D incised valley fill experiment, 4) 3D alluvial fan experiment

NUMERICAL MODEL

1D delta building model with bottomset, compaction, mud retention change
 Levee building model using advection settling
 Delft3D

SOFTWARE

Matlab
 R
 Agisoft (3D model)
 Cyclone (3D scanner)
 Qgis
 Petrel

EXPERIENCE

Visiting student at Utrecht University, Netherlands (Advisor: Jaap Nienhuis)	Jul. 2023
Schlumberger: Seismic attribute analysis for structural-stratigraphic interpretation	Dec. 2023
Schlumberger: Introduction to geological process modeling for CCS/CCUS site selection	Dec. 2022
[Short course] Clastic reservoir sedimentary rock analysis (Prof. Ryu)	Nov. 2022
[Short course] Oil and gas exploration technique using Data Sciences	Jun. 2022
Interdisciplinary research Academy (ICONS)	July. 2022
Drone training (Title of license: Pilot of an ultra-light vehicle)	Jun. 2022
4 th Human Resources Training Student, KIGAM, Korea	Apr. 2019 - Sep. 2019
✓ Seismic Data Processing and Well Log Interpretations	
Resource Development Special Practical Training and PETREL Software Training, EMRD	Aug. 2018
Geological Field Camp, Yonsei University	Jun. 2018 - Jul. 2018
✓ 2 weeks in Taebaek, Korea	
EMRD Field Training Program	Dec. 2017 - Feb. 2018
✓ Research Institute of Geology & Petroleum Engineering, HCMUT, Vietnam	
GOCAD Software Training, Korea University	Aug. 2017
Global Business Training School, Yonsei University	Jan. 2017 - Feb. 2017