

An aerial night rendering of a futuristic urban air mobility hub. The central feature is a large, curved, white building with a glass-enclosed upper section. The roof of the building is illuminated with green and blue lights, forming circular patterns. A white drone with red lights is flying in the upper left. The building is situated on a waterfront, with a road and a body of water in the foreground. The text "Department of Urban Air Mobility" is overlaid in the center. The word "DREAM" is visible in colorful letters on the building's facade. The scene is lit with warm white lights from the building and surrounding area, contrasting with the dark night sky and water.

Department of Urban Air Mobility

Aeronautical College Student's Work

The Only UAM Department in KOREA



The International Level Curriculum

	1 st Semester(spring)	2 nd Semester(fall)
1 st year	Introduction to UAM I Engineering Mathematics Aviation Regulations	Introduction to UAM II Introduction to Programming Statics AI Mathematics
2 nd year	Aviation IT Engineering Avionics Engineering Structural Mechanics Thermodynamics	Dynamics Aerodynamics eVTOL Propulsion System Machine Learning
3 rd year	AI Programming Aviation Safety UAM System Engineering Digital Twin I	3D Printing Sensor Engineering Cyber Security Digital Twin II
4 th year	Automatic Navigation Control Vertiport/Hub System UAM Design	UTC/UTM Reliability Engineering Big Data

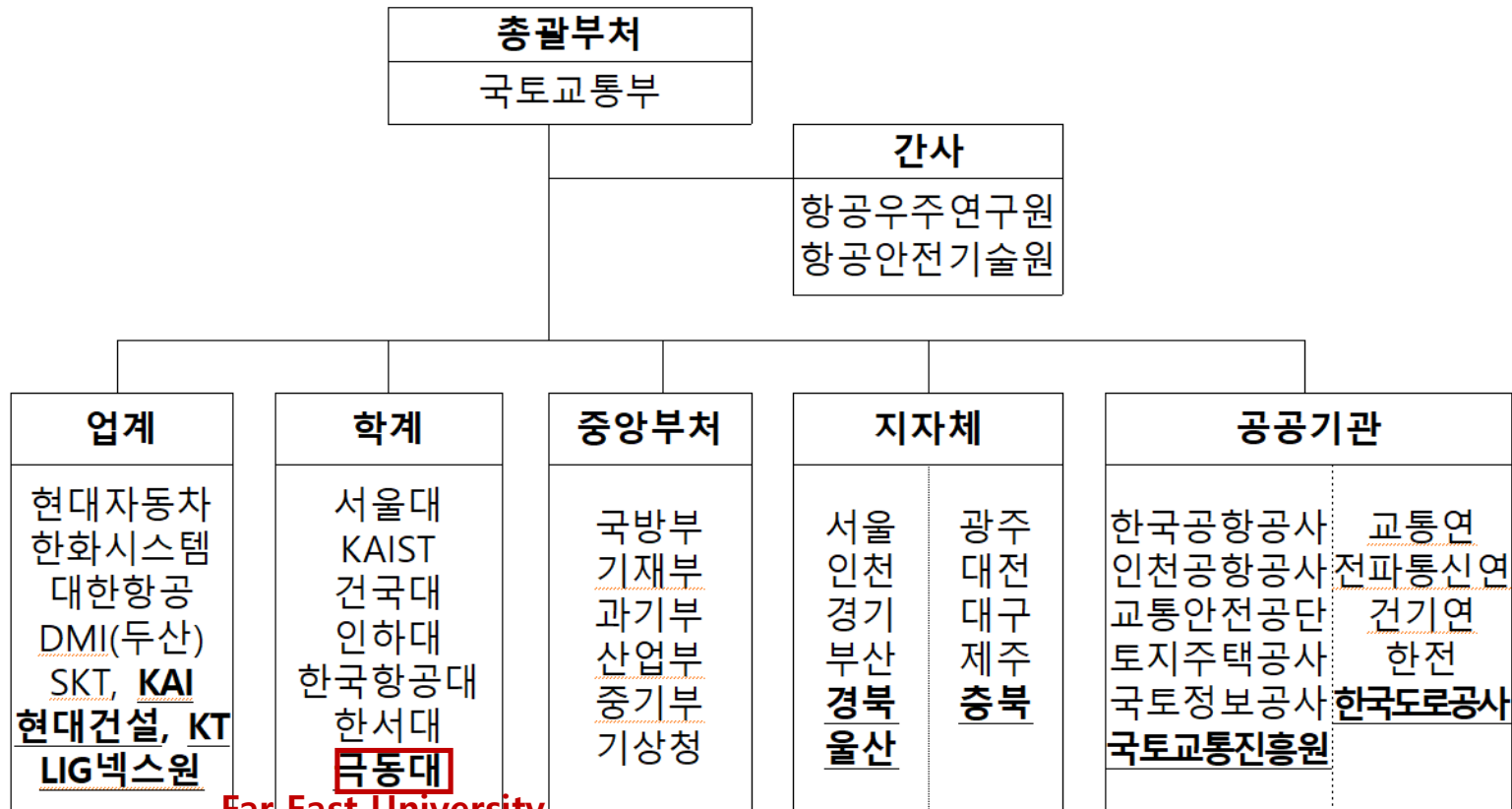
The Experience Networking Program

- ❖ Participation in Academic Conferences
- ❖ eVTOL Design
- ❖ eVTOL Subscale 3D Printing Produce
- ❖ Vertiport Design
- ❖ UAM Simulation

The Experience Networking Program (`2021)

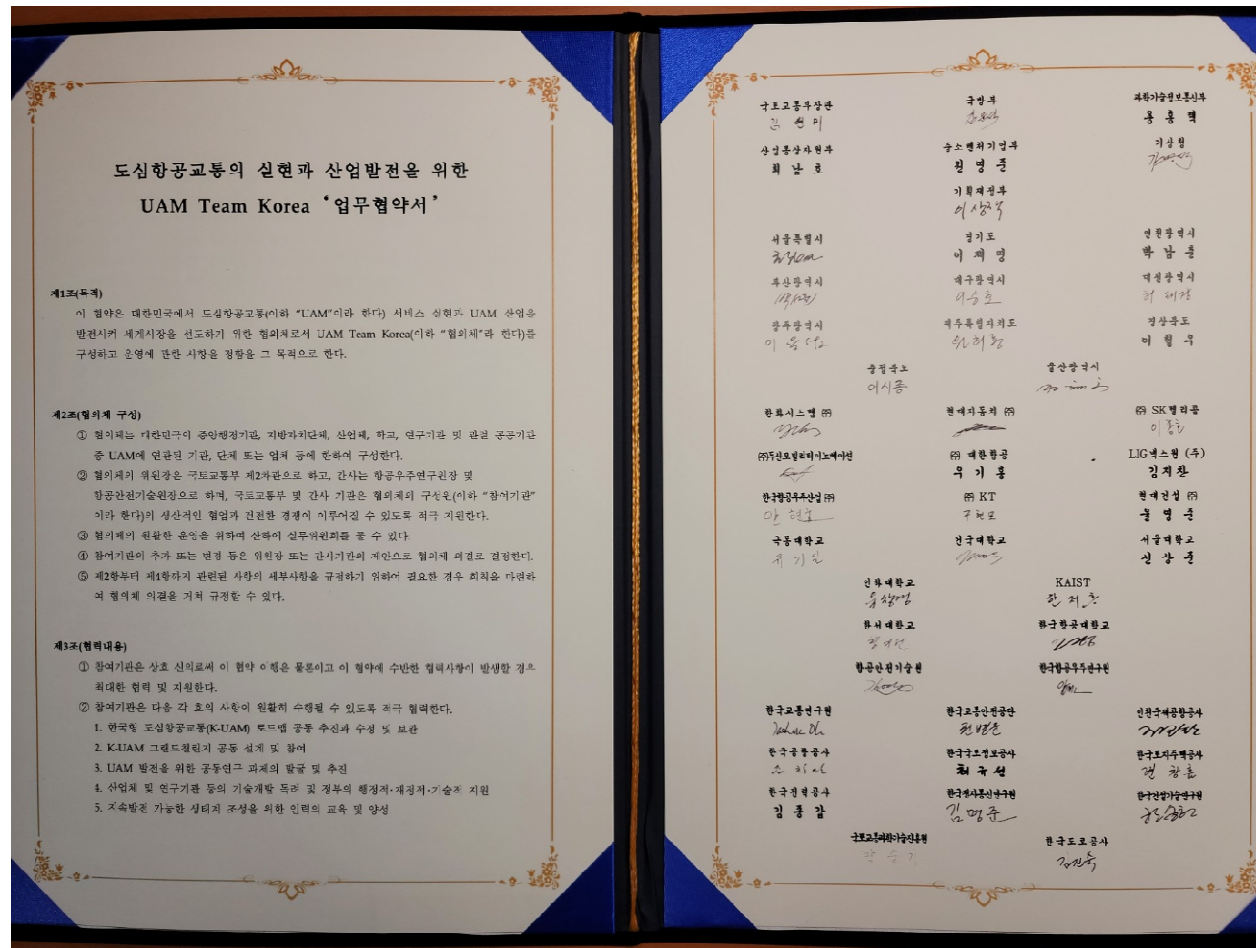


UAM Team Korea Participating Organizations



* 출처 : 국토교통부 홈페이지 - 볼드체는 2022년도 추가된 대학 및 기관

UAM Team Korea Agreement



UAM Digital Twin Research Center

- ❖ eVTOL Digital Twin Development
- ❖ eVTOL HIL System Development
- ❖ Big Data AI Analysis
- ❖ UAM Operation Simulation



Faculty Thesis Performance (SCI Journal)

논문명	Steady-State and Transient Performance Modeling of Smart UAV Propulsion System Using SIMULINK		
학술지명	American Society of Mechanical Engineers International	집/권/호	vol.131 no.3
학회명	JOURNAL OF ENGINEERING FOR GAS TURBINES AND POWER-TRANSACTIONS OF THE ASME		
논문명	Study on Component Map Identification from Gas Turbine Performance Deck Data Using Hybrid Method		
학술지명	INTERNATIONAL JOURNAL OF TURBO&JET-ENGINES	집/권/호	24/3-4
학회명	Freund Publishing House Ltd.		

논문명	Component Map Generation of a Gas Turbine Using Genetic Algorithms		
학술지명	JOURNAL OF ENGINEERING FOR GAS TURBINES AND POWER	집/권/호	128/1
학회명	ASME (미국기계학회)		
논문명	Improvement on Performance Simulation of Gas Turbine Using Component Maps Obtained from System Identification		
학술지명	Intl. J. Turbo & Jet-Engines	집/권/호	21/4
학회명	Freund Publishing House Ltd.		
논문명	Fuzzy Approaches for Searching Optimal Component Matching Point in GasTurbine Performance Simulation		
학술지명	JOURNAL OF ENGINEERING FOR GAS TURBINES AND POWER	집/권/호	126/4
학회명	ASME (American Society of Mechanical Engineers)		

논문명	Steady-State Performance Simulation and Engine Condition Monitoring for 2-Spool Separate Flow Type Turbofan Engine		
학술지명	Intl. J. of Turbo & Jet-Engines	집/권/호	20/4
학회명	Freund Publishing House, Ltd., England		
논문명	A new scaling method for component maps of gas turbine using system identification		
학술지명	JOURNAL OF ENGINEERING FOR GAS TURBINES AND POWER	집/권/호	125/4
학회명	The American Society of Mechanical		
논문명	Component Map Generation of Gas Turbine Engine Using Genetic Algorithms and Engine Performance Deck Data		
학술지명	JOURNAL OF ENGINEERING FOR GAS TURBINES AND POWER	집/권/호	129/2
학회명	ASME, J. of Eng. for Gas Turbines and Power		



**A Traffic Revolution Unfolding in the Sky,
I Catch It !**