Table S1. List of supplementary material.

Nr	Filename	Short Description
SM1	SM1_Study Area.tiff	Map of the full study area in the Thessaly region.
SM2	SM2_DTM (5 × 5m)–HC–Study Area.pdf	Digital Terrain Model (5 × 5 m resolution) from Hellenic Cadastre the study area.
SM3	SM3_Sub-basins.pdf	Map of the 6 sub-basins delineation.
SM4	SM4_Hydrographic Network.pdf	Map of the hydrographic network of the study area.
SM5	SM5_Land uses.pdf	Land-uses map of the study area, derived from CORINE 2018.
SM6	SM6_Land uses and CN per sub-basin.xlsx	An excel file presenting the CN_c estimations per sub-basin with the respective calculations.
SM7	SM7_Hyetographs from updated IDF curves parameters.pdf	A pdf file presenting the hyetographs per sub-basin based on updated IDF curve parameters using the Alternate Block Method.
SM8	SM8_Produced Hydrographs.pdf	A pdf file with the 9 hydrographs exported from hydrological simulation (HEC-HMS).
SM9	SM9_Geomorphology + 6 time conc. + 6 time lags.xlsx	An excel file presenting the sub-basin geomorphological characteristics with time of concentration and time lag values and the respective calculations.
SM10	SM10_Trainning and Testing Domains.tif	A map of Spatial domains used for training/testing datasets.
SM11	SM11_U-Net Architecture flow chart.png	Flowchart diagram of customized U-Net model architecture.
SM12	SM12_U-Net Architecture scheme.pdf	Detailed schematic of customized U-Net architecture.
SM13	SM13_Simulated vs. Predicted Flood Extents for TS1.pdf	Map comparing simulated and predicted flood extents (Test Scenario 1).
SM14	SM14_Simulated vs. Predicted Flood Extents for TS2.pdf	Map comparing simulated and predicted flood extents (Test Scenario 2).

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Please move the supplementary table into one individual supplementary files and remove it from the main text.