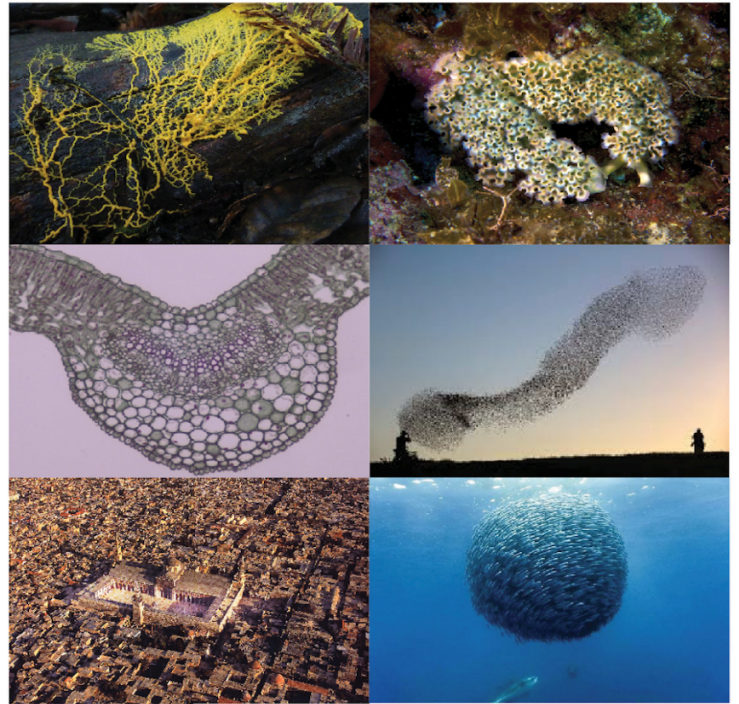


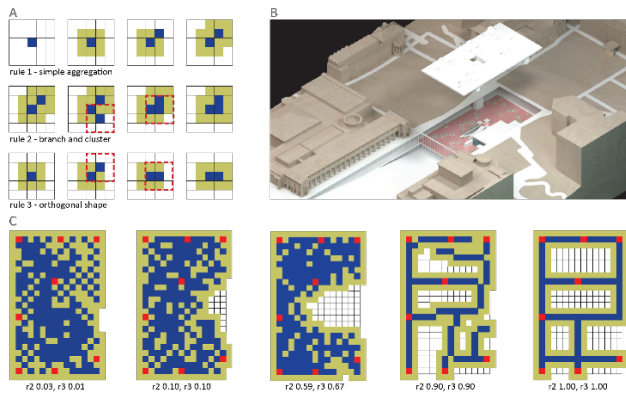
# 62706 Generative Systems for Design

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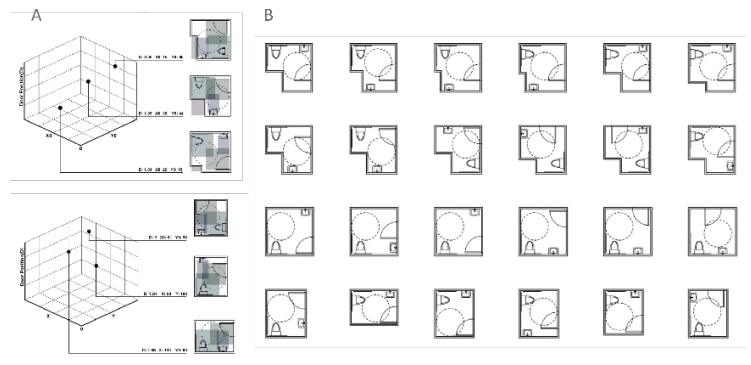
Register to learn how techniques inspired by natural and urban phenomena and derived from computational design and artificial intelligence can lead to novel design solutions. The course gives an overview of the main topics in generative systems, with historical notes and technical specifications. The course addresses topics such as parametric modeling, rule-based modeling, agent-based modeling, optimization, and learning. Appropriate data structures, algorithms and models will be discussed, and implemented through exercises and projects. The goal of the course is to foster the student's capacity to computationally formulate design problems with an emphasis on the synthesis of design alternatives. The target audience are artists and designers from different areas, such as architecture, game, 3D modeling, interaction, visualization, etc.



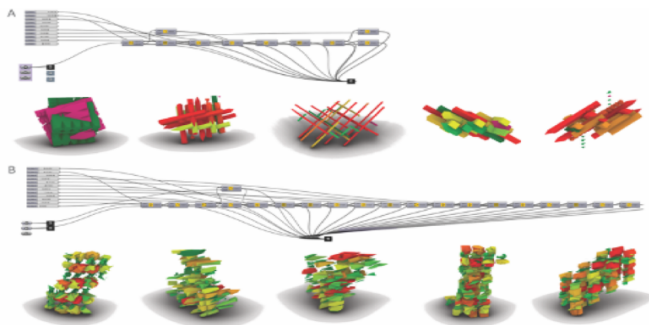
## Examples of mini projects from previous year



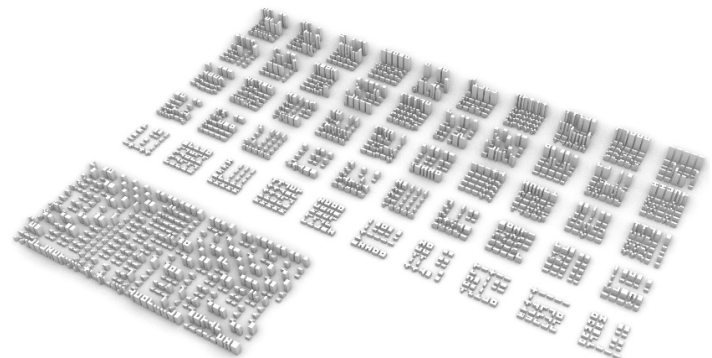
Underground campus gallery generated by agents (J. Rhee)



Autoilet - Automatic synthesis of ADA accessible toilets (J. Wang and J. Y. Choi)



Automatic programs for sculpture generation (M. Stesney)



Alphabet City - Automatic generation of urban fabric (J. Wang and A. Pandit)