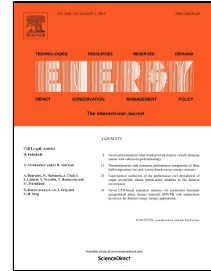


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Energy efficiency-based course timetabling for university buildings

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12 13 14 **Abstract**

15 With increasing concern for energy savings in universities, operational solutions, such as
16 control strategies and occupant interventions, have been recommended to reduce energy use, due
17 to the limited responsibilities of faculties and students for energy saving. Additionally, the
18 energy-efficient allocation of classrooms can contribute to achieving further energy saving,
19 because they have different spatial and functional capacities, which result in variation in energy
20 use. In this context, course timetabling can be regarded as a basic source of allocating specific
21 classrooms to lectures. However, there have been few attempts to consider spatial and functional
22 capacities related to energy use in classrooms. Further, little is known about investigating the
23 impact of course timetabling on energy consumption in classrooms. Therefore, this research

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