Anthropogenic Heat in Urban Environment: Case of Tehran

Ahmad Haghighat Kharrazi  
M.S. Student of Architecture  
Engineering Faculty, Golestan University  
a.hagighat11@gmail.com

Mohammad Farrokhzad  
Assistant Professor  
Engineering Faculty, Golestan University  
(Corresponding Author)  
m.farrokhzad@gu.ac.ir

According to climatological evidences the globe is highly suffering from an unprecedented climate change destructing the surficial layer of the earth and increasing the sea level as a result. Human made changes due to new life styles, environmental pollutions, manipulating the vegetation have ultimately caused grieve disorders in the nature ending into climate change. Mega-cities have been exposed to a critical environmental problem dubbed as “Urban Heat Island” (UHI), which is caused by temperature increases in urban environments. Recent studies indicate that heat generated by humans' activities is the main cause of UHI. In this study the urban anthropogenic heat generation in various cities has been reviewed and as a case study, the anthropogenic heat in Tehran has been analyzed. Finally, the effects of street orientation, seasons, and urban density on anthropogenic heat generation have been examined.

Keywords: Urban environment, Anthropogenic heat, Urban heat island, Urban density

Received: 12/11/2016  
Accepted: 9/5/2017