Interdisciplinary Human Scientific Approach to Railway Transport Systems

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Human Science is a generalized term that encompasses a research on human psychology, behavior and responses through a scientific approach. This paper outlines recent topics and potential developments of the approach. In particular, we focus on an interdisciplinary approach in cooperation with appropriate research fields. Major topics discussed include: joint studies with train protection systems on human error prevention, with vehicle dynamics on passengers' motion and injuries caused by train collisions and riding comfort evaluation, and with architectural engineering on safe evacuation methods for passengers in congested railway stations.