

PROJECT

Artificial data

Most of the project databases consist of artificial project data generated with project network generators under a structured design. Find more about generating project data in:

Vanhoucke, M., Coelho, J., Debels, D., Maenhout, B., & Tavares, L. V. (2008). An evaluation of the adequacy of project network generators with systematically sampled networks. *European Journal of Operational Research*, 187(2), 511-524.

Empirical data

Empirical data is not generated but collected from business. A framework to classify empirical project data is proposed in:

Batselier, J., & Vanhoucke, M. (2015). Construction and evaluation framework for a real-life project database. *International Journal of Project Management*, 33(3), 697-710.

Analyse results

In order to quickly analyse new results and compare them with the state-of-the-art knowledge, a new data analyser is proposed in:

Vanhoucke, M., & Coelho, J. (2018). A tool to test and validate algorithms for the resource-constrained project scheduling problem. *Computers and Industrial Engineering*, 118, 251-265.



Researchers in the field of **project management and scheduling** develop tools and techniques to schedule projects under limited resources. They also investigate the impact of project **uncertainty** - delays and/or cost overruns - and propose proactive methods to better cope with these unexpected events. Finally, they propose different project **control** methodologies using analytical and statistical methods to monitor the project progress in order to take corrective actions. To test their algorithms, researchers need data.

Summary paper: In the following paper, an overview of the existing databases for projects is given:

Vanhoucke, M., Coelho, J., & Batselier, J. (2016). An overview of project data for integrated project management and control. *Journal of Modern Project Management*, 3(2), 6-21.

Download the data from www.projectmanagement.ugent.be/research/data.

Data-driven project management: Learn how to manage your project using data-driven methodologies by reading the business novel “**Data-Driven Project Manager: A Statistical Battle Against Project Obstacles**” available at www.or-as.be/books.