

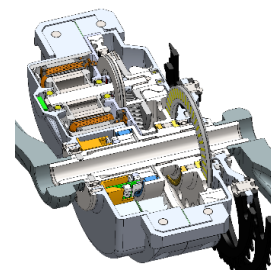
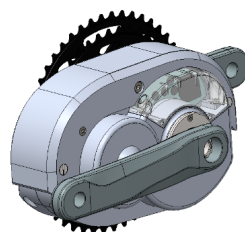
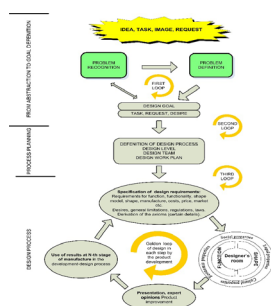


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Golden loop inside the design methodology for total production engineering

Production engineering can come on highest level of productivity if in the whole process involved in very beginning time Research-development and designing phase. One of the known methodologies is golden loop, which was present firstly on TU Delft on 2002. Later was developed in LECAD on the University of Ljubljana. Laboratory LECAD was known about fully cooperation with the industry and novelties of the product. In paper will be present first loop where the problem recognition was performed. The second loop is important for team consolidation and clearing the problems at all. On the third loop, we find out the function capability according the request. Finally, in the golden loop we proposed the detail design with high level of detail searching. With that golden loop the product, become visible in good prepared for production and especially for total production engineering. With some example as e-drive bicycle, it is we as if present few interesting details, which can be improved if we used golden loop methodology in the whole process.



Recent Publications

- Slak Aleš, Tavčar Jože and Duhovnik Jože (2014) Case study analysis and genetic algorithm adaptation for job process planning and scheduling in batch production. *Journal of Design Research* 12:52-77.
- Černe Borut and Duhovnik Jože (2015) Numerical analysis of operational performance of POM/PA6 polymer S-type spur gears and analysis of influence of the production process. *International Journal of Mechanical Engineering and Automation* 2(12):525-533.
- Varl Mitja, Duhovnik Jože and Tavčar Jože (2016) Towards a model for robust design and design process in one-of-a-kind production of large power transformers. *International Journal of Agile Systems and Management* 9(1).
- Pogačnik Borut, Duhovnik Jože and Tavčar Jože (2017) Aircraft fault forecasting at maintenance service on the basis of historic data and aircraft parameters. *Eksplotacija i Niezawodność*, 19(4):624-633.
- Tavčar Jože, Demšar Ivan and Duhovnik Jože (2018) Engineering change management maturity assessment model with lean criteria for automotive supply chain. *Journal of Engineering Design* 29(4-5):235-257.

Biography

Jože Duhovnik is a Professor in University of Ljubljana and he has established LECAD Laboratory. He has many lectures in Universities around EU and USA and has more than 600 professional projects around the world. He has more than 200 publications and 12 books about the design and CAD Technik.

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