



#2015CECECEMASummit

23 - 24 September, Brussels

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Automated Asphalt Compaction with Pivot-steered Tandem Rollers



Process reliability on road construction sites is heavily dependent on the knowledge of the various users due to the comparatively low degree of automation in compaction technology. Consequently, automation solutions for asphalt compaction compatible with the work process possess great potential to ensure quality and efficiency. As part of a research project by the Department for Agricultural Engineering and Mobile Machinery of the University of Applied Sciences

Osnabrück together with the roller manufacturer Hamm, approaches and process algorithms were developed that permit automated machine guidance behind the road paver.



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Benefits of the project:

- Enhancing process reliability by standardised planning methods
- Boosting efficiency through precise implementation of the planning results
- Easing the burden on operators by supporting planning and implementation

Project development:

- Team – Dr. Axel Römer, Dr. Sebastian Villwock, Hans-Peter Patzner, Prof. Bernd Johanning, Christoph Halbrügge
- Timing – 2012 to present
- Cooperation – Hamm AG, University of Applied Sciences Osnabrück

Market:

- EU / US
- Still in R&D phase
- Result is a starting point for product developments

Additional information:

- The lowest possible dependence on previous participants in the planning and process chain was provided for
- A simulation platform has been created that permits realistic investigation of the algorithms
- The concepts and algorithms confirmed their practical functionality during trial scenarios