

DIG-AC A digital traceability chain for ac voltage and current

<https://digac.gum.gov.pl/dig/the-project/wp2/2588,Work-Package-2-Wide-Range-Dynamic-Digitizing.html>
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Work Package 2: Wide Range Dynamic Digitizing

The aim of this work package is to develop measurement systems employing digital techniques to be used in NMIs and calibration laboratories for the practical realisation of step-up and step-down procedures and scaling of electrical current and voltage, starting from a Josephson standard as the fundamental reference.

These will be achieved by the following steps: an analysis of methods based on digital techniques to achieve a practical realization of step-up and step-down procedures; a study of issues in interfacing digitisers in voltage scaling and in the measurement and scaling of currents; the preparation of guidelines providing an integrated approach to scaling, digital techniques and quantum standards by combining digitisers with voltage dividers and current shunts.