Contribution ID: **7**   Type: **not specified**

Digital Regulation by Emulating Analogue Controllers: Implementation

Tuesday 22 May 2012 11:00 (25 minutes)

Less ADCs than order of the system -> Passive damping is better than getting stability by means of the regulation.
Input: Constant Load Current -> constant input power -> negative input resistance of the power supply -> ringing on the intermediate DC power bus -> introduction of passive damping on the input

Output: Oscillation of the output filter and the load -> passive damping on the output
Delta-Sigma-ADCs -> static precision is 'no problem'-> AC precision is today's problem -> mains synchronous ripple suppression (i.e. 50Hz, 300Hz, 600Hz) -> prefilters -> arbitrary pre-oscillator

ADC values -> Add a standard header to the ADC values to create standard audio files -> Use standard audio freeware for wave and frequency analysis

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