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| ATD, per ltr 2 Dec 1965                                                                                                                                                                                                                   |

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G/033/62/000/006/002/004  
I004/I204

AUTHOR: (8) Reinisch, K., Doctor of Engineering

TITLE: (6) Use of a control loop simulator for obtaining simple dimensioning rules for linear control networks with their characteristic parameters

PERIODICAL: (13) Zeitschrift für massen, steuern, regeln, no.6, 1962, 245-251

TEXT: The article discusses the employment of an analog computer for the dimensioning of linear control circuits, their time-rate constants, delay - and dead times, in order to obtain a desired degree of damping. As an object of the study the control loop simulator MD 1, developed by the author, was used. The transfer function simulator of the above system allowed simulation of networks con-

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Use of a control loop...

taining "m" poles and "n" zeros. A table gives the dimensioned the attainable quality factor for linear control networks, over-shoot values  $\Delta h \leq 10\%$ . A parallel compensation method is also proposed, as it is the most accurate one for experimental determination of the network parameters. At the Ilmenau Control Engineering Institute an automatic self-adjusting system based on the parallel compensation principle was developed. The proposed method of determination of the number and the respective value of the time constants requires further investigation because of the problem of disturbances superimposed upon the measured transfer function. There are 12 figures and 1 table.

ASSOCIATION: Institut für Regelungstechnik der Hochschule für Elektrotechnik (Institute for Control Technology of the School of Electrical Engineering) Ilmenau

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