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An Electronic Shower Control

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SENIOR DESIGN
TECHNICAL REPORT

for

AN ELECTRONIC SHOWER CONTROL
_____
title

in partial fulfillment of the requirements

for the degree of

BACHELOR OF SCIENCE

presented to the

ELECTRICAL ENGINEERING TECHNOLOGY FACULTY

INDIANA UNIVERSITY-PURDUE UNIVERSITY AT FORT WAYNE

April 19, 1980
_____
date

by

Dave Durante
_____

GRADE: _

APPROVED: _

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ABSTRACT

AN ELECTRONIC SHOWER CONTROL

BY: DAVID DURANTE

The Electronic Shower Control is a device that replaces manually operated valves in a conventional shower with a set of five pushbuttons. In addition to making any adjustment in either temperature or flow, this device can also maintain an operator-selected temperature within $\pm 3^\circ$ F.

The device is constructed with both digital and analog circuitry, including two feedback control loops. One loop is used to maintain temperature and the other loop is used to adjust flow.