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OF RESEARCH REPORTS, PAPERS, BULLETINS, AND THESES
OF ENGINEERING, COLORADO STATE UNIVERSITY

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Catalog of Research Reports, Papers, Bulletins and Theses

For the period July 1, 1974 through June 30, 1977

COLLEGE OF ENGINEERING, COLORADO STATE UNIVERSITY

FORT COLLINS, COLORADO 80523

July 1, 1977

U18401 0074784

CER77-78DB52

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COLLEGE OF ENGINEERING

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INTRODUCTION

This catalog presents a list of Colorado State University publications prepared by the faculty, research staff and students of the College of Engineering. Included are publications of U.S. Government staff affiliated with the College of Engineering.

A listing of publications prior to 1974 may be found in previous catalogs, "Research Reports, Papers, Bulletins, and Theses," Civil Engineering Numbers CER63RAS71, CER65DKS52, CER68-69DBS40, CER70-71DBS69, and CER74-75DBS45.

A supplement to this catalog will be issued every two years.

The publications by members of various departments are listed alphabetically by senior author. Papers coauthored by members of different departments in the College of Engineering are cross-referenced with appropriate notes.

Theses and dissertations may be obtained on an interlibrary loan by writing to the Director of Libraries, Colorado State University.

Copies of publications, when available, may be obtained for a nominal charge. See notation at end of each departmental listing as to whom to address communication when requesting copies. Papers and reports out of print may be duplicated at a cost of 10¢ per page. An additional fee will be charged for postage and handling.

ABBREVIATIONS USED IN THIS CATALOG

AAAS/AIAA	American Association for the Advancement of Science Society/American Institute of Aeronautics and Astronautics
ACI	American Concrete Institute
ACM	Association for Computing Machinery
ACOP	Alluvial Channel Observation Project
AEC	Atomic Energy Commission
AGARD	Advisory Group for Aerospace Research and Development
AGU	American Geophysical Union
AIAA	American Institute of Areonautics and Astronautics
AIChE	American Institute of Chemical Engineers - Society of Petroleum Engineers
AIIE	American Institute of Industrial Engineers
AIME	American Institute of Mining Engineers
AMS	American Meteorological Society
AMS/WMO	American Meteorological Society/World Meteorological Association
ANSI	American National Standards Institute
Arch. Met. Geopys. Biokl.	Archiv fur Meteorologie Geophysik and Bioklimatologie
ARMA	Autoregressive-Moving-Average
ARS	Agricultural Research Service
ARS/SCS	Agricultural Research Service/Soil Conservation Service
ASAE	American Society of Agricultural Engineers
ASCE	American Society of Civil Engineers
ASEE	American Society of Electrical Engineers/American Society of Engineering Education
ASHRAE	American Society of Heating, Refrigeration, and Air Conditioning Engineering
ASME	American Society of Mechanical Engineers
ATDL	Atmospheric Turbulence and Diffusion Laboratory
ATS	Applications Technology Satellite
AWEA	American Wind Energy Association
AWRA	American Water Resources Association
CAT	Clear-Air Turbulence
CENTO	Central Treaty Organization
CIAP	Climatic Impact Assessment Program
CID	Consortium for International Development
CO-TIE	Cooperation via Televised Instruction in Education
CPIA	Chemical Propulsion Information Agency
CSAE	Canadian Society of Agricultural Engineers
CSU	Colorado State University
ECOM	United States Army Electronics Command
EMG	Electromyographic
EPA	Environmental Protection Agency
ERDA	Energy Research and Development Administration
ERM	Educational Research Methods
ESSA	Environmental Sciences Services Administration
FEA	Federal Energy Administration
GARP	Global Atmospheric Research Program
GATE	GARP Atlantic Tropical Experiment
HRIS	High Resolution Infrared Sounder
HUD	Housing and Urban Development
IAHR	International Association for Hydraulic Research
IAMAP	International Association of Meteorological and Atmospheric Physics
IASH	International Association for Scientific Hydrology
IBP	International Biological Program
ICID	International Commission on Irrigation and Drainage
ICSU/WMO	International Council of Scientific Unions/ World Meteorological Organization
IEE	Institute of Electrical Engineers
IEEE	Institute of Electrical and Electronics Engineers
IFAC	International Federation of Automatic Control
ISA	Instrument Society of America
ISES	International Solar Energy Society
IUGG	International Union of Geodesy and Geophysics
JANNAF	Joint Army-Navy-NASA-Air Force
LDC	Less Developed Country
LEC	Low Cost Extrusion Cooker
LIDAR	Light Detection and Ranging
LIFE	League for International Food Education
NATO	North Atlantic Treaty Organization
NAVWEARCHFAC	Navy Weather Research Facility
NBS	National Bureau of Standards
NCAR	National Center for Atmospheric Research
NOAA	National Oceanic and Atmospheric Administration
NSF	National Science Foundation
NTIS	National Technical Information Service

Abbreviations (continued)

NWS	National Weather Service
NWS/RFS	National Weather Service/River Forecasting System
ONR	Office of Naval Research
OWRR	Office of Water Resources Research
OWRT	Office of Water Research and Technology
RANN	Research Applied to National Needs
SCS	Soil Conservation Service
SIAM	Society for Industrial and Applied Mathematics
TIMS/ORSA	Institute of Management Science/Operation Research Society of American
UAG	University of Alaska Geophysics Insitute
UAH	University of Alabama, Huntsville
UES	Undergraduate Education and Science
UMSCHAU	German magazine similar to SCIENCE
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAEC	United States Atomic Energy Commission
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
USGS	United States Geological Survey
VISSR	Visible and Infrared Spin Scan Radiometer
VTPR	Verticle Temperature Profile Radiometer
WAPDA	Water and Power Development Authority
WASAR	Water and Soil in Arid Regions
WECS	Wind Energy Conversion System
WMO	World Meteorological Association
WMO/AMS	World Meteorological Association/American Meteorological Society
WMO/IAMAP	World Meteorological Association/International Association of Meteorological and Atmospheric Physics
WMO/IUGG	World Meteorological Association/International Union of Geodesy and Geophysics

ACADEMIC AND RESEARCH FACULTY

DEPARTMENT OF AGRICULTURAL AND CHEMICAL ENGINEERING

Judson M. Harper, Head

1974-1977

CLYMA, W., Associate Professor: (on-farm water management)

COREY, A.T., Professor: (flow through porous media)

DOWNS, W.H., Research Associate: (power and machinery)

EVANS, N.A., Professor: (irrigation and drainage)

HANSEN, R.W., Associate Professor and Extension Agricultural Engineer: (farm structures and power machinery)

HARPER, J.M., Professor and Head of Department: (food engineering)

HART, W.E., Associate Professor: (irrigation and drainage)

HEERMANN, D.F., Affiliate Faculty ARS: (irrigation)

HILLER, R.L., Associate Professor: (water law, land use management)

ILLSLEY, N., Research Associate: (irrigation systems)

KARMELI, D., Professor: (irrigation systems)

KEMPER, W.D., Professor: (water management)

LONGLEY, T.S., Research Associate, Extension Agricultural Engineer: (irrigation)

McWHORTER, D.B., Associate Professor: (soil and water)

MILES, D.L., Assistant Professor and Extension Irrigation Engineer: (irrigation)

SCHIERHOLZ, P.M., Assistant Professor: (alternative energy, food crystalization)

SHIGETOMI, C., Research Associate: (school lunch programs)

SKOGERBOE, G.V., Professor: (irrigation and drainage)

SMITH, J.L., Associate Professor: (power and machinery)

SMITH, S.W., Research Associate: (irrigation systems)

TRIBELHORN, R.E., Research Associate: (food processing)

WALKER, L., Research Associate and Extension Agricultural Engineer: (environmental engineering)

WALKER, W.R., Assistant Professor: (irrigation and drainage)

WARD, R.C., Associate Professor: (systems analysis)

WHITE, M.D., Associate Professor: (natural resources law)

WILSON, D.E., Research Associate: (irrigation systems)

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Beetner, G., see T. Tsao, Department of Agricultural Engineering.

Bennett, R.S., see G.V. Skogerboe, Department of Agricultural Engineering.

Chandler, R.L. and D.B. McWhorter, Interface upconing beneath a pumping well. Groundwater, Vol. 13, No. 4, October 1974. pp. 354-359. AEP74-75RC-DBM2.

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Chotisasitorn, M. and R.C. Ward, Water management strategies for small irrigation reservoirs in northeast Thailand. Paper No. 75-2508, Winter Meeting, ASAE, Chicago, December 15-18, 1975. 20 p. ASAE Transactions, Vol. 19, No. 3, 1976. pp. 524-528. AEP75-76MC-RCW11.

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2. A.C. Early, Department of Agricultural Engineering (2 coauthorships).
3. W.D. Kemper, Department of Agricultural Engineering (4 coauthorships).

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2. T. Trout, Department of Agricultural Engineering.

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_____, see:
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2. W.R. Walker, Department of Agricultural Engineering (3 coauthorships).

Ferris, P.L., see H.W. Down, Department of Agricultural Engineering.

Frey, A.L., J.M.Harper, G.R. Jansen, R.H. Crews, C.T. Shigetomi, and J.B. Lough, A comparison of type A and nutrient standard menus in school lunch programs. I. Development of the nutrient standard method (NSM). Journal of the American Dietetic Association, Vol. 66, 1975. AEP74-75ALF-JMH-GRJ-RHC-CTS-JBL6.

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_____, see:
1. J.M. Harper, Department of Agricultural Engineering (2 coauthorships).
2. J. Løvland, Department of Agricultural Engineering (3 coauthorships).
3. T. Tsao, Department of Agricultural Engineering.

Geohring, L., see W.R. Walker, Department of Agricultural Engineering.

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