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Superconducting magnets, energy storage
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Switches/switching; cf. Semiconductor switches
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 - concentrated winding machine that develops square-wave EMF. *Xiang, W.F.*, + , *IAS 85* 848–853
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- Synchronous motor drives; cf.** Reluctance motor drives
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- Telemetry; cf.** Measurement-system data handling
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- Thermal factors**
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- Thermal power generation, air pollution**
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- Thickness measurement**
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- Thyristor circuits**
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- Thyristor converters**
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 - pulsewidth modulated ac to dc converter using GTO thyristors. *Kataoka, T.*, + , *IAS 85* 966–974
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- GTO thyristor developments for inverter applications; comparison with bipolar transistors. *Thomas, B.*, + , *IAS 85* 882–888
- GTO thyristors in isolated base module. *Connolly, A.P.*, + , *IAS 85* 955–959
- high-power double-interdigitated GTO thyristor. *Silard, A.*, + , *IAS 85* 865–867
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- 4.5-kV 3-kA GTO thyristor; turn-on and turn-off characteristics. *Hashimoto, O.*, + , *IAS 85* 876–881

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- effects of machine parameters on torque characteristics studied using new vector control concept. *Ueda, R.*, + , *IAS 85* 578–585

Torque control; cf. Motor drives**Torque measurement**

- induction motors; flux and torque sensing method. *Lipo, T.A.*, + , *IAS 85* 765–769

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- multiphase ac machine electromagnetic torque; real-time monitoring. *Vas, P.*, + , *IAS 85* 732–737

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- induction motor traction drives for large coal-handling equipment; vector control method. *Wasko, C.R.*, *IAS 85* 681–684
- Traction motor drives; cf.** Guideway-transportation propulsion; Rail-transportation propulsion; Road-vehicle electric propulsion

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- predicting inrush currents in transformers. *Jwa, C.K.*, + , *IAS 85* 302–305
- reducing output current harmonics of current source inverter via interphase transformer. *Miyairi, S.*, + , *IAS 85* 1046–1051

Transient analysis

- transient oscillation phenomena in electrohydrodynamic instability of nematic liquid crystals. *Kai, S.*, + , *IAS 85* 1548–1554

Transient analysis; cf. Industrial power system transients; Power system transients; Rotating-machine transient analysis; Switching transients**Transient stability; cf.** Power system stability, transient**Transistors; cf.** Power bipolar transistors; Power FETs**Transmission lines; cf.** Multiconductor transmission lines; Power transmission lines**Transportation; cf.** Guideway transportation; Rail transportation; Road transportation**Triboelectricity**

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 - electrostatically augmented bag filters using triboelectric charger; pilot test. *Kawamura, T.*, *IAS 85* 1412–1417
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- Tunnels; cf.** Underground electromagnetic communication

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- mine monitoring and communications research by West Virginia University and Auburn University. *Nutter, R.S., Jr.*, + , *IAS 85* 146–153

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- thrusters for tethered submersibles; variable-frequency induction motor drive with power MOSFET inverter. *Mauch, K.*, + , *IAS 85* 710–715

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- high-switching-frequency PWM inverter with hybrid Darlington switches for uninterruptible power supplies; design considerations. *Manjunath, H.V.*, + , *IAS 85* 1025–1032
- uninterruptible power systems, PWM inverter technology extended to incorporate transistor switching power stages. *Griffith, D.C.*, + , *IAS 85* 1141–1144

V

Varistors

- metal oxide varistors for surge protection of power semiconductor devices; dynamic behavior. *Jinzenji, T.*, + , *IAS 85* 929–934

Very large-scale integration

- electrostatic discharge protection for VLSI circuits. *Greason, W.D.*, *IAS 85* 1429–1434

Voltage breakdown; cf. Dielectric breakdown**Voltage control**

- chopper integrated voltage control method for speed control of dc motor. *Irie, H.*, + , *IAS 85* 405–410

W

Water

- glass embedded capacitive-type water sensors; design optimization via modeling. *Boules, N.*, + , *IAS 85* 1441–1448

Waveform generators; cf. Signal generators**Welding; cf.** Arc welding**Wind power generation**

- multifunction dc – dc converter as power conditioner for solar or wind energy systems. *Ferrieux, J.-P.*, + , *IAS 85* 1001–1007

Workstations, human factors; cf. Displays, human factors

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X

Xerography; cf. Electrophotography

Z

Zeros; cf. Poles and zeros

1985 THIRTY-SEVENTH ANNUAL CONFERENCE OF ELECTRICAL ENGINEERING PROBLEMS IN THE RUBBER AND PLASTICS INDUSTRIES

April 15 – 16, 1985, Akron, OH

A

ac motor drives

design considerations for GTO inverters in ac motor drive applications. *Mattern, K.E., + , RAPCON 85 10-16 ac motor drives; cf. Induction motor drives; Synchronous motor drives*

C

CAD (computer-aided design); cf. Design automation**CAM (computer-aided manufacturing); cf. Manufacturing automation****Cascade systems**

advantages of cascaded temperature controllers as used on plastic extruders. *Carr, D.M., RAPCON 85 21-28*

Chemical industry; cf. Plastics industry**Computer software documentation; cf. Documentation****Control systems; cf. Digital control; Manufacturing automation; Process control; Programmable control**

D

dc motor drives

preprogrammed digital coordination for dc drivers. *DiNardo, R., RAPCON 85 53-59*

Design automation

technology trends in CAD/CAM. *Weisberg, D.E., RAPCON 85 1-5*

Digital control

digital technique for controlling mixture of two or more materials. *Minnich, C.A., + , RAPCON 85 29-36*

preprogrammed digital coordination for dc drivers. *DiNardo, R., RAPCON 85 53-59*

Digital image processing; cf. Image processing**Displays**

color graphics for diagnostic applications in plant environment. *Sandusky, C.F., RAPCON 85 60-61*

Documentation

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Fault diagnosis

color graphics for diagnostic applications in plant environment. *Sandusky, C.F., RAPCON 85 60-61*

G

Graphic displays; cf. Displays

I

Image processing

measuring rubber bank weight by processing two-dimensional images; structure, algorithm accuracy. *Nagano, J., RAPCON 85 37-40*

Induction motor drives

ac vector control drives for process applications; performance capabilities. *Wasko, C.R., RAPCON 85 6-9*

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proper selection of induction motors for use with inverters. *Baglione, D.A., RAPCON 85 48-52*

Industrial control; cf. Manufacturing automation; Process control; Programmable control

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M

Maintenance

color graphics for diagnostic applications in plant environment. *Sandusky, C.F., RAPCON 85 60-61*

Manufacturing automation

technology trends in CAD/CAM. *Weisberg, D.E., RAPCON 85 1-5*

Manufacturing automation; cf. Process control; Programmable control

Materials processing

digital technique for controlling mixture of two or more materials. *Minnich, C.A., + , RAPCON 85 29-36*

Mechanical variables measurement; cf. Weight measurement

Motor drives; cf. ac motor drives; dc motor drives; Induction motor drives; Synchronous motor drives

Multiprocessing

automation of tire press through multiprocessor programmable controller. *Aldridge, R., RAPCON 85 43-47*

P

Plastics industry

advantages of cascaded temperature controllers as used on plastic extruders. *Carr, D.M., RAPCON 85 21-28*

high-efficiency variable-speed ac drive for Banbury mixer. *Lawrence, R.G., RAPCON 85 17-20*

Power conversion, dc – ac; cf. ac motor drives

Process control

advantages of cascaded temperature controllers as used on plastic extruders. *Carr, D.M., RAPCON 85 21-28*

digital technique for controlling mixture of two or more materials. *Minnich, C.A., + , RAPCON 85 29-36*

measuring rubber bank weight by processing two-dimensional images; structure, algorithm accuracy. *Nagano, J., RAPCON 85 37-40*

Programmable control

automation of tire press through multiprocessor programmable controller. *Aldridge, R., RAPCON 85 43-47*

preprogrammed digital coordination for dc drivers. *DiNardo, R., RAPCON 85 53-59*

programming documentation software for PLCs. *Brickley, J.H., RAPCON 85 41-42*

Proportional control

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R

Reliability; cf. Maintenance**Rubber industry**

measuring rubber bank weight by processing two-dimensional images; structure, algorithm accuracy. *Nagano, J., RAPCON 85 37-40*

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S

Software documentation; cf. Documentation

Synchronous motor drives

high-efficiency variable-speed ac drive for Banbury mixer. *Lawrence, R.G., RAPCON 85 17-20*

T

Temperature control

advantages of cascaded temperature controllers as used on plastic extruders. *Carr, D.M., RAPCON 85 21-28*

Thyristor motor drives

design considerations for GTO inverters in ac motor drive applications. *Mattern, K.E., + , RAPCON 85 10-16* †

W

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measuring rubber bank weight by processing two-dimensional images; structure, algorithm accuracy. *Nagano, J., RAPCON 85 37-40*

1985 JOINT ASME/IEEE RAILROAD CONFERENCE

April 16 – 18, 1985, New York City, NY

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Control systems; cf. Rail-transportation control systems

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Expert systems

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K

Knowledge-based systems; cf. Expert systems

P

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R

Rail transportation

analytic model of rail car energy consumption. *English, G.W., + , RRCON 85 1-7*

gravity-assisted rapid transit; operations analysis. *Weiss, D.M., RRCON 85 8-18*

Rail-transportation control systems

Automated People Mover microprocessor-based train control; operating and maintenance experiences. *Robbins, A.S., RRCON 85 53-58*

microprocessor control of wheel slip events. *Burt, H.G.P., + , RRCON 85 19-28*

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diesel – electric locomotive propulsion systems. *Hapeman, M.J., + , RRCON 85 108-115*

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Rail-transportation reliability

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Rapid transit; cf. Urban transportation

U

Urban transportation

Automated People Mover microprocessor-based train control; operating and maintenance experiences. *Robbins, A.S., RRCON 85 53-58*

microprocessor control of wheel slip events. *Burt, H.G.P., + , RRCON 85 19-28*

gravity-assisted rapid transit; operations analysis. *Weiss, D.M., RRCON 85 8-18*

1985 ANNUAL PULP AND PAPER INDUSTRY TECHNICAL CONFERENCE

April 23 – 26, 1985, Houston, TX

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ac motor drives

paper-machine retrofit using ac vector control drives. *Rector, H., + , PAPCON 85 91-94*

ac motors

solid-state ac motor starters in pulp and paper industry. *Bowerfind, J., + , PAPCON 85 126-131*

Angular velocity measurement

improved methods of measuring machinery speeds via adaptive integral processor. *Fritz, R.J., PAPCON 85 53-57*

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Arc discharges; cf. Circuit breakers; Interrupters
Availability; cf. Maintenance

C

Cables

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Circuit breakers

comparison of vacuum and SF₆ technologies at 5 kV through 38 kV. *Swindler, D.L., PAPCON 85 98-103*

guidelines for application of vacuum contactors. *Farag, S.F., + , PAPCON 85 37-42*

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Circuit breakers; cf. Interrupters

Cogeneration

grounding considerations in cogeneration. *Woodbury, F.A., PAPCON 85 43-52*

solar energy cogeneration system at Shenandoah, Georgia. *Ney, E.J., + , PAPCON 85 30-36*

Communication system planning

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Computer software documentation; cf. Documentation

Control systems; cf. Distributed control; Programmable control

D

dc motors

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Distributed control

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Documentation

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Electromagnetic interference

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Energy management

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F

Fault tolerance; cf. Industrial power system faults

Fires

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G

Gas-insulated substations

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Gas interrupters; cf. SF₆ interrupters

Grounding

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H

Harmonic analysis

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I

Induction motors

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Industrial control; cf. Programmable control

Industrial power system economics

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study of electrical energy use by pumping systems in paper-mill bleach plant. *Gault, T., + , PAPCON 85 132-137*

Industrial power system faults

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Industrial power system faults; cf. Industrial power system protection

Industrial power system protection

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Industrial power system protection; cf. Industrial power system faults; Motor protection

Industrial power systems; cf. Cogeneration

Interrupters

guidelines for application of vacuum contactors. *Farag, S.F., + , PAPCON 85 37-42*

Interrupters; cf. Circuit breakers; SF₆ interrupters; Vacuum interrupters

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Manufacturing automation; cf. Programmable control

Manufacturing economics

study of electrical energy use by pumping systems in paper-mill bleach plant. *Gault, T., + , PAPCON 85 132-137*

Manufacturing economics; cf. Industrial power system economics; Motor economics

Measurement; cf. Monitoring

Microcomputer applications

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Monitoring

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Motion transducers; cf. Velocity transducers

Motor drives

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Motor drives; cf. ac motor drives

Motor protection

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Motors; cf. ac motors; dc motors; Induction motors

O

Optical fiber applications

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P

Planning; cf. Communication system planning

Position transducers

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Power generation; cf. Cogeneration

Power ...; cf. Industrial power system ...

Process heating; cf. Cogeneration

Programmable control

programmable controller and distributive control installation practices. *Crane, R., PAPCON 85 1-6*

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Protection/safety; cf. Fires; Grounding; Industrial power system protection; Motor protection

Pulp and paper industry

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- Software documentation; cf. Documentation**
- Solar power generation**
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- Spectral analysis; cf. Harmonic analysis**
- Steam generation; cf. Cogeneration**
- Substations; cf. Gas-insulated substations**
- Switches/switching; cf. Vacuum switches**
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T

- Testing**
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1985 RURAL ELECTRIC POWER CONFERENCE

April 28 - 30, 1985, Springfield, IL

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 stray voltage in livestock facilities. *Gustafson, R.J., REPCON 85 Paper C2/1-19*

C

- Capacitor switching**
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- Cogeneration**
 consumer-owned generation facilities; metering considerations. *Nason, R.R., +, REPCON 85 Paper C4/1-8*
- Construction**
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E

- Electric shock**
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- Electric variables measurement; cf. Power system measurements**

F

- Forecasting; cf. Load forecasting**

G

- Grounding; cf. Electric shock**

H

- Harmonic distortion; cf. Power system harmonics**

I

- Imaging/mapping; cf. Infrared imaging/mapping**
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- Infrared imaging/mapping**
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Boza, P.S., +, REPCON 85 Paper C1/1-4
- Inspection**
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- Thermal power generation; cf. Cogeneration**
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V

- Vacuum interrupters**
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- Vacuum switches**
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- Velocity measurement; cf. Angular velocity measurement**
- Velocity transducers**
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L

- Lightning, power systems**
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