

Institute for Public Policy and Business Research
University of Kansas

HIGH-TECHNOLOGY BUSINESS DIRECTORY
FOR
LAWRENCE, KANSAS

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in cooperation with

City of Lawrence
Douglas County
Lawrence Chamber of Commerce

Anthony L. Redwood
Executive Director

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FOREWORD

Lawrence has experienced solid economic growth over the past few years. Steady employment and establishment growth, are evidence of the economic well-being of the community. Part of that growth has occurred in high-technology businesses, which provide many new job opportunities and are leaders in new product development and exporting.

The University of Kansas has been a catalyst in attracting some of these new firms to our community. In other instances, the University of Kansas has assisted growth and expansion of existing businesses with technical advice and technology transfer. I would like to continue and strengthen this type of University-City cooperation.

This directory is intended to assist further growth of high-technology companies in Lawrence by providing information about their products and services. The companies listed account for approximately 1000 jobs in Lawrence/Douglas County. Many of these companies have plans for expansion and the potential to develop new products. High technology enjoys high visibility for Lawrence. I want to express my gratitude to these companies for choosing Lawrence as a place to do business, and hope that Lawrence and the University of Kansas will continue to provide the assistance and support necessary for a prosperous business climate.

Robert Schumm
Mayor of Lawrence

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PREFACE

This directory contains information on 29 businesses in Lawrence that have been identified as high-technology enterprises. The following criteria were used to differentiate high-tech companies:

1. A high proportion of scientists and engineers in the workforce;
2. Highly sophisticated technology incorporated into products;
3. Firms with high growth rates and a high ratio of research and development expenditures to total sales; and
4. Products which tend to incorporate technological innovation, have a high degree of value-added, and are often recognized as "state of the art" in a given line.

The second section of the directory contains a listing of laboratories and research institutions at the University of Kansas that are important as an industrial liaison. They provide valuable resources for testing and consulting. Some work regularly with businesses in the state and surrounding areas.

A variety of sources were used for this information, including a directory by the Kansas Technology Enterprise Corporation (KTEC), a directory of the Silicon Prairie Technology Association, the Chamber of Commerce, telephone and manufacturing directories, newspaper articles, and, primarily, reports from businesses themselves. Special thanks are owed to all companies who shared information.

Every effort has been made to include all the firms in the area. Please report any errors or omissions to the Institute for Public Policy and Business Research, University of Kansas, Lawrence, KS 66045, for future updates. Additional copies of this report will be available through the Lawrence Chamber of Commerce, 209 W. 8th Street, Lawrence, KS 66044, (913) 843-4411.

MANUFACTURING

Applied Microwave Corporation
Route 6, Box 205A
Lawrence, KS 66046

(913) 749-3511

Owner(s): Dennis Anderson, David Brunfeldt, Craig Dobson,
Fawwaz Ulaby

President: David Brunfeldt

Annual Sales: \$250,000

Original equipment manufacturer of microwave systems. Active Radar Calibrator: used with civilian and military radars to provide a simulated radar target which is calibrated. Scatterometer: precision radar for the measurement of radar reflectivity from a variety of natural and cultural targets. Dielectric Probe: device for measuring the dielectric (insulative) properties of materials at microwave frequencies.

Established in Douglas County in 1983.

Firms's Trade Area(s): National and International

Bendix/King
2920 Haskell
Lawrence, KS 66044

(913) 842-0402

Owner(s): Allied-Signal Corporation

President: Fred Wenninger

Design, manufacture, and market avionics and land mobile communications systems.

Established in Douglas County in 1973.
Headquarters in Olathe.

Firm's Trade Area(s): Local, State, National, and International

MANUFACTURING

Centron Production, Inc.
1621 West 9th Street, Box 687
Lawrence, KS 66044

(913) 843-0400

Owner(s): Robert T. Kohl

President: Robert T. Kohl

Film and video production. Provide creative and technical production services in 16mm film and video tape for business and industry, government, associations, and educational institutions, including script writing, photography, editing, art and animation, sound recording and mixing.

Established in Douglas County in 1947.

Cypress Systems Inc.
2323 Ridge Court
Lawrence, KS 66046

(913) 842-2511

Owner(s): Robert Broman, Mr. & Mrs. Terry Hu, Jane and Ted
Kuwana

President: Jane Kuwana

Manufacture, design, and sell computer-based research instruments for use in the fields of biology and chemistry.

Established (as corporation) in Douglas County in 1987.

Firm's Trade Area(s): International

MANUFACTURING

Kantronics, Inc.
1202 East 23rd Street
Lawrence, KS 66046

(913) 842-7745

Owner(s): Privately owned corporation.

President: Philip Anderson

Annual Sales: \$3 million

Electronics manufacturing. Manufacture high-speed radio modems for commercial, government and military, and amateur use.

Established in Douglas County in 1971.

Firm's Trade Area(s): International

Kohlman Systems Research, Inc.
319 Perry Street
Lawrence, KS 66044

(913) 843-4099

Owner(s): Privately owned corporation.

President: Paul Baker

Instrumentation manufacturing, aeronautical engineering, airplane flight testing. Manufacture computerized flight test data acquisition systems; provide application software for flight-test data analysis; perform contract flight testing service; perform aeronautical engineering consulting.

Established in Douglas County in 1982.

Firm's Trade Area(s): International

MANUFACTURING

Optical Technology Corporation
515 East 22nd Terrace
Lawrence, KS 66046

(913) 841-8939

Owner(s): Dr. Neil Minkin and Dr. Bonnie L. Minkin

President: Dr. Neil Minkin

Manufacturing/product development of infant vision tester - only commercially available ophthalmic instrument capable of measuring visual acuity in infants, small children and other non-verbal individuals. Other child development products and instrument tables.

Established in Douglas County in 1984.

Firm's Trade Area(s): National and International

Signalcrafters, Inc.
P.O. Box 3406
Lawrence, KS 66046-0406

(913) 841-7556

Owner(s): David Fayman

President: David Fayman

Electronic manufacturing. Measuring instruments for power transmission systems.

Established in Douglas County in 1976.

Firm's Trade Area(s): National and International

MANUFACTURING

Transtronics, Inc.
3209 West 9th
Lawrence, KS 66049

(913) 841-3089

Owner(s): Karl Schmidt and Norma Schmidt

President: Karl Schmidt

Annual Sales: \$155,000

Manufacture telemetry control equipment for the water industry. Design computer peripheral systems.

Established in Douglas County in 1985.

Firm's Trade Area(s): International

SOFTWARE & SYSTEMS

A/S/K Associates
1505 Kasold Drive
Lawrence, KS 66046

(913) 841 8194

Owner(s): Ken Martinez and Sheila Martinez

President: Ken Martinez

Computer systems operations and systems analysis,
design, and programming.

Established in Douglas County in 1979.

Firm's Trade Area(s): National

Bulgren and Burnett, Inc.
P.O. Box 1072
719 Massachusetts
Lawrence, KS 66044

(913) 842-7585

Owner(s): Peggy Burnett and Bill Bulgren

President: Peggy Burnett

Offer services and consulting regarding the use,
design, and programming of computer software.

Established in Douglas County in 1981.

Firm's Trade Area(s): National

Firm is presently inactive.

SOFTWARE & SYSTEMS

Data Anilas, Ltd.
3220 Mesa Way, Suite A
Lawrence, KS 66044

(913) 843-8171

Owner(s): Thomas Darnell

President: Thomas Darnell

Development, installation and support of integrated office automation computer systems. Services include system design, system integration, software development, system installation, system training, system repair, and after-market support.

Established in Douglas County in 1983.

Firm's Trade Area(s): State

Farallon Computing, Inc.
1321 Wakarusa Drive, Suite 2010
Lawrence, KS 66044

(913) 843-8101

Home office in Berkley, CA.

Owner(s): Privately held corporation.

President: Reese Jones (Berkley, CA)

Vice-Pres.: Robert Herrington (Lawrence, KS)

Annual Sales: \$20 million (includes parent corporation)

Develops integrated networking, multi-media, and collaborative computing products for the Macintosh. Sells and supports 'WOS Fund Accounting.'

Moved to Douglas County in 1986.

Firm's Trade Area(s): International

SOFTWARE & SYSTEMS

Foresight Solutions, Inc.
804 New Hampshire Street
Lawrence, KS 66044

(913) 842-7526

Owner(s): Rhonda Ross and Myles Schachter

President: Myles Schachter

Annual Sales: \$2.5 million (includes retail
businesses)

Computer/software supplier. Major supplier of micro-computer systems to city, county and state governments. Software products include fund accounting, park and recreation scheduling, fleet management and CAD systems. Computers include those by NCR, Sperry, IBM, and NEC.

Established in Douglas County in 1982.

Firm's Trade Area(s): National and International

Heartland Systems, Inc.
1611 St. Andrews Drive
Lawrence, KS 66046

(913) 749-2626

Owner(s): J.D. Hicks and Paul Rasmussen

President: Paul Rasmussen (acting President)

Annual Sales: \$200,000

Provides software engineering solutions. Offers training, consulting, and technical support in addition to software products.

Established in Douglas County in 1984.

Firm's Trade Area(s): International

SOFTWARE & SYSTEMS

Interactive Concepts Incorporated
2500 West 6th
Lawrence, KS 66044

(913) 749-4844

Owner(s): Research Capital Management Group, Ltd. and Research
Capital Management Group II, Ltd.

President: Michael Fragale

Distribute and support software developed within the
University. Current products include "Surface III",
a three-dimensional contour mapping package, and
"Eavesdropper", and in-field seismic data processing
package.

Established in Douglas County in 1988.

Firm's Trade Area(s): International

Miracle Computing
313 Clayton Court
Lawrence, KS 66044

(913) 843-5863

Owner(s): Richard Elliot

President: Richard Elliot

Software house. Sells vertical market software,
consulting work, and installation and training of
systems. Specializes in automation of manufacturing
businesses.

Established in Douglas County in 1980.

Firm's Trade Area(s): Local

SOFTWARE & SYSTEMS

Preventive Measures, Inc.
1115 West Campus Road
Lawrence, KS 66044

(913) 842-5078

Owner(s): Lynn B. Osterkamp and Allan N. Press

President: Allan N. Press

Health-related computer software. Computerized stress assessments. Stress management book. Consulting.

Established in Douglas County in 1984.

Firm's Trade Area(s): International

Solutions Group, Inc.
111 Riverfront Road
Lawrence, KS 66044-1481

(913) 843-5764

Subsidiaries include Remote Solutions and Medical Solutions.

Owner(s): Dave Fonseca and Paul Gray

President: Paul Gray

Annual Sales: Remote Solutions - \$1 million
Medical Solutions - not yet available

Solutions Group - Provides most of the research and development and legal services for subsidiaries.

Remote Solutions - Computerized tracking systems and data acquisition systems specializing in bar code.

Medical Solutions - Nationwide network of claims processing. Computerization of medical offices.

Solutions Group established in Douglas County in 1987.
Remote Solutions established in Douglas County in 1981.
Medical Solutions established in Douglas County in 1988.

Firm's Trade Area(s): National

TELECOMMUNICATIONS

Comdisco Systems/Star Corp. Inc.
600 Lawrence Avenue, Suite 2D
P.O. Box 3385
Lawrence, KS 66044

(913) 841-1283

Owner(s): Comdisco, Inc.

President: K. Sam Shanmugan

Research develop CAD software for communications systems.

Established as Star Corp. in Douglas County in 1979.
Became Comdisco Systems in 1987.

Firm's Trade Area(s): International

INFORMATION

Ergosyst Associates, Inc.
910 Massachusetts Street, Suite 503
Lawrence, KS 66044-2975

(913) 842-7334

Owner(s): John L. Burch

President: John L. Burch

Annual Sales: \$140,000

Publishing and information services. Publisher and multi-disciplinary information resource company. Works published address the following subjects: human factors/ergonomics, artificial intelligence, VDT health & safety issues, office automation, interactive computer display design. Publisher of World Yearbook of New Generation Computing Research & Development.

Established in Douglas County in 1979.

Firm's Trade Area(s): International

PHARMACEUTICAL, BIOLOGICAL, BIOMEDICAL & DENTAL TECHNOLOGY

INTERx Research Corporation
2201 West 21st Street
Lawrence, KS 66046

(913) 841-1700

Owner(s): Merck & Co., Inc.

President: Dr. Arnold J. Repta

Annual Sales: \$7 billion (includes entire corporation)

Pharmaceutical research. Controlled release and delivery of drugs. Part of Merck Sharp & Dohme Research Laboratories.

Established in Douglas County in 1972.

Firm's Trade Area(s): International

Odontex, Inc.
P.O. Box 3245
Lawrence, KS 66046

(913) 841-6619

Owner(s): Privately held corporation.

President: John Hefferren

Develop controlled-release trans-membrane delivery of pharmaceuticals.

Established in Douglas County in 1987.

Firm's Trade Area(s): International

PHARMACEUTICAL, BIOLOGICAL, BIOMEDICAL & DENTAL TECHNOLOGY

Oread Laboratories, Inc.
1501 Wakarusa Drive
Lawrence, KS 66047

(913) 749-0034

Owner(s): Publicly held corporation.

President: Dr. William P. Duncan

Analytical services and research laboratory. Specializes in ultra-sensitive analysis of interest to the emerging bio-technology industries in the health, food, and environmental project fields. Provides pre-clinical drug evaluation studies. Performs pharmaceutical research and development.

Established in Douglas County in 1983.

Firm's Trade Area(s): International

AVIATION

Kohlman Aviation Corporation
319 Perry Street
Lawrence, KS 66044

(913) 843-4098

Owner(s): David and Linda Kohlman

President: David Kohlman

Engineering consulting and sales. Aeronautical engineering consulting, ice protection systems for aircraft, expert witness services, accident investigation, and simulator data packages.

Established in Douglas County in 1977.

Firm's Trade Area(s): National and International

SPECIALIZED CONSULTING

Computer Consulting
3116 Ranger Drive
Lawrence, KS 66049

(913) 841-8333

Owner(s): Privately owned.

President: Schlomo Ginsburg

Complete computer consulting services. General purpose and custom software development for business and personal applications.

Established in Douglas County in 1986.

Firm's Trade Area(s): National

Mackenzie And Company, Inc.
700 Massachusetts Street, Third Floor
P.O. Box 1118
Lawrence, KS 66044

(913) 749-1006

Owner(s): Kenneth MacKenzie

President: Kenneth MacKenzie

Research-based management consulting and software development for our technology. Specializes in designing organizations to be more productive and adaptive. Also, developing and marketing organizational support (OSS) for firms.

Established as Organizational Systems, Inc. in Douglas County in 1976. Became Mackenzie And Co., Inc. in 1983.

Firm's Trade Area(s): National

ENVIRONMENTAL

Hall-Kimbrell Environmental Services, Inc.
4840 West 15th Street
Lawrence, KS 66046

(913) 749-2381

Owner(s): Privately held corporation.

President: W. David Kimbrell

Annual Sales: \$44 million

Environmental engineering firm. Provide environmental engineering and architectural engineering services, construction monitoring, analytical testing, litigation support, environmental training and education, and industrial hygiene services.

Moved to Douglas County in 1984.

Firm's Trade Area(s): International

Mayhew Environmental Training Associates, Inc. (META)
901 Kentucky, Suite 306
P.O. Box 1961
Lawrence, KS 66044

(913) 842-6382

Owner(s): Mr. & Mrs. Brad Mayhew

President: Brad Mayhew

Annual Sales: \$1 million

Offer training courses for asbestos workers and professionals. Provide laboratory services, hazard assessment, asbestos removal and management consulting.

Established in Douglas County in 1987.

Firm's Trade Area(s): National

ENVIRONMENTAL

Strata Environmental Services, Inc.
1321 Wakarusa Drive
P.O. Box 1732
Lawrence, KS 66044

(913) 841-7120

Owner(s): Privately held corporation.

President: Dennis Jones

Full service environmental engineering firm, providing geotechnical consulting services. Full service analytical laboratory. Perform lab analysis on soils, ground water, drinking water, air, petroleum products, and natural gas and radon testing. Develop and market sophisticated computer-controlled monitoring system for underground storage tanks.

Established in Douglas County in 1988.

Firm's Trade Area(s): Local, State, and National

KANSAS UNIVERSITY RESEARCH ORGANIZATIONS

The following non-commercial laboratories and research centers provide basic and applied research in areas of interest to high-technology businesses. Many work closely with individual firms or industries to provide technology transfer. To contact those listed, include in the address: University of Kansas, Lawrence, KS 66045.

Building Environmental Systems and Construction Engineering Laboratories

Ronald Helms, 210 Snow, 864-3434

Analysis and design of buildings - including lighting (interior, exterior, and daylighting), electrical power, heating, ventilation, and air-conditioning, solar, and construction management. Computer applications to engineered systems are developed to solve building systems design needs.

Center for Biomedical Research

Elias Michaelis, 152 Smissman, 864-5140

Established as an administrative unit responsible for furthering the University's contributions to biomedical research. Studies focus on the biological mechanisms of disease; metabolism of drugs in the body; and design, synthesis and delivery of chemotherapeutic agents to treat such ailments as glaucoma, hypertension, viral and bacterial infestations, cancer and mental illness.

Center for Research, Inc.

Carl Locke, 4010 Learned, 864-3881

Non-profit organization develops and administers sponsored research in engineering and related areas.

Computer Integrated Manufacturing Laboratory

Bill Barr, 256 Nichols, 864-4775

Research on the rule and knowledge base for robotic handling and automated fixturing in a work station for metal removing operations. Two robots and a computer-controlled machining station are used for process planning for a factory of the future.

Computational Mechanics Laboratory

Donald Gyorog, 3013 Learned, 864-3181

Computational mechanics research and development in solid mechanics, structural mechanics, fluid mechanics, system dynamics and control, and thermal sciences.

Energy Analysis and Diagnostic Center

Peter TenPas, 3029 Learned, 864-3181

Conducts industrial energy conservation audits and analyses for small to medium-size companies in eastern Kansas, western Missouri and nearby portions of Nebraska and Iowa.

Environmental Health Program

Ross McKinney, 5007 Learned, 864-3731

Research on air pollution control, solid waste management, water pollution control, water quality, and resource management. Emphasis on anaerobic biological treatment concepts and acid dust widely used on Kansas fields and trihalomethane formation in surface and ground waters.

Flight Research Laboratory

David Downing, 135 Nichols, 864-7707

Optimum aerodynamic design and control of vehicles ranging from spacecraft and supersonic jets to transport aircraft. The laboratory's facilities consist of three wind tunnels, a shock tube, an instrumentation lab, two airplanes, and a modern flight test and propulsion test facility.

Higuchi Biosciences Centers of Excellence

1. Center for Bioanalytical Research

Theodore Kuwana, 104 McCollum Research Laboratory, 864-3096

Detection and the determination of various bioactive species in biological and environmental matrices. Designated as the University of Kansas Center for Excellence for the purpose of enhancing research and development in areas of high technology. Center helps coordinate research projects that have a potential for economic development.

2. Center for Drug Delivery Research

(Prospected to begin operation between July 1989 and July 1990).

Industrial Innovation Laboratory

Bill Barr, 256 Nichols, 864-3181

Develop and test both hardware and software packages of microcomputer-based systems. Application of microprocessors, microcomputers and other integrated circuits to mechanical systems. It can create new products and processes and improve productivity. Laboratory personnel apply advanced NASA technology, including robotics and expert systems, to projects in cooperation with regional industry.

Institute for Experimental & Applied Ecology

Kenneth Armitage, 5022 Haworth, 864-3236

Stimulate, coordinate, and facilitate interdisciplinary research which effectively utilizes the resources inherent in the 1650 acres of land comprising the Kansas Ecological Reserves.

Institute for Public Policy and Business Research

Anthony Redwood, 607 Blake Hall, 864-3701

Applied, Kansas-oriented research for state and local governments, the state business community, and other private organizations in the areas of business, public policy, and economics.

Auxiliary State Data Center

Receives and/or accesses most major census publications for Kansas and neighboring states, and collects and maintains other various state and national data sources. Makes census information available to the public. Function of IPPBR.

Survey Research Lab

Conducts surveys for state and local governments and private organizations to determine public opinions on proposed policies and legislation and for needs assessment studies. Function of IPPBR.

Isotope Geochemistry Laboratory

W.R. Van Schmus, Marion Bickford, 356 Nichols, 864-3675

Equipped with two solid-source mass-spectrometers plus clean chemical lab facilities to determine abundance and isotopic composition of Rb, Sr, U, and Pb and other suitable elements. Provides isotopic age determinations for private industrial use.

Kansas Applied Remote Sensing

Edwin Martinko, 240 Nichols, 864-7720

Assists Kansas agencies and private industry to better utilize satellite and airborne remote sensing systems. Actively engaged in training and technology transfer activities focused on dissemination of information regarding the potential for utilization of remote sensing/geographic information systems technologies.

Kansas Biological Survey

Edwin Martinko, 240 Nichols, 864-7725

Purpose: (1) to gather, by field census and other means, information on the kinds, distribution, and abundance of plants and animals (other than domesticated kinds); (2) to compile, analyze, and interpret this information; and (3) to make the information readily available through reports and publications.

Kansas Geological Survey

Lee Gerhard, 305 Moore Hall, 864-3965

Conducts research in the earth sciences. Research is undertaken in water, energy, minerals, and land use, and includes the development of new analytical techniques and better methods for handling and displaying geological data. The survey is not a regulatory agency; instead, it provides information on resources and problems, allowing individuals and agencies to make will-informed decisions.

Kansas University Transportation Center

Joe Lee, 2011 Learned, 864-3787

Transportation research and coordination of transportation-related teaching on campus. Latest equipment for collecting traffic data available for loan. Basic experiments on pavements and pavement material conducted in Pavement Materials Laboratory.

Kurata Thermodynamics Laboratory

Colin Howat, Campus West, 864-3860

Applied thermodynamic projects including experimental and computer modeling of natural gas reservoirs, experimental and design studies to optimize production at synthetic rubber plants, computer modeling of operating sequences at petrochemical plants to determine optimum performance for operations and designs, and more classic studies of thermodynamic mixtures.

Mineral Resources Institute

Carl Locke, 4010 Learned, 864-3881

Research in engineering and geology on the identification and exploitation of mineral resources in Kansas and the nation.

National Asbestos Training Center

Lani Himegarner, 6600 College Blvd., Suite 315,
Overland Park, KS 66211, (913) 749-2867

Provide training courses for the removal and maintenance of asbestos.

Radiation Physics Laboratory

Edward Zeller, Gisela Dreschhoff, 154 Nichols, 864-4516

Evaluates radioactive mineral resources and radioactive materials disposal.

Radar Systems and Remote Sensing Laboratory

Richard Moore, 209 Nichols, 864-4835

Develops radar systems for various purposes. Evaluates novel radar systems, especially for space applications, and researches microwave sensing of the earth's surface and atmosphere.

Sculpture Research Center

Eldon Tefft, 353 Art & Design Building, 864-5529

Research and development of sculpture techniques and processes.

Small Business Development Center

Steve Schwartz, 209 W. 8th, Lawrence, KS 66044, 843-4411

Provides comprehensive management and technical assistance to small businesses in Kansas.

Space Technology Center

Bill Barr, 256 Nichols, 864-4776

Research and education in space-related science and technology.

Structural Engineering and Materials Laboratory

David Darwin, 2008C Learned, 864-3826

Research in the areas of structural analysis and design, structural engineering materials, and fracture and fatigue of metals and metallic structures. Several specialized components form the SEML - (1) static and servo-hydraulic test equipment for large scale structural testing; (2) hydraulic and mechanical testing machines with static load capabilities up to 200,000 pounds; (3) and electron microscope facility with both transmissions and scanning electron microscopes; (4) concrete laboratory equipped to run standard tests on cement, aggregates, and concrete; and (5) stress analysis of structures and mechanical systems subjected to various types of loading.

Telecommunications and Information Sciences Laboratory (TISL)

Victor Frost, 210 Nichols, 864-4833

Computer-aided modeling, analysis, and simulation of new designs for communication systems, including telephone, satellite, optical fiber, and microwave systems. Laboratory facilities are also used for signal processing, image simulation, and computer-aided design of integrated circuits.

Tertiary Oil Recovery Program

Don Green and Paul Willhite, 4008 Learned, 864-3001

Research and development in new technologies for the recovery of oil in the state and dissemination of information about these technologies to the Kansas oil industry.

Water Resources Institute

Ernest Pogge, 1039 Learned, 864-3807

Water resources research and water resources education.