KU INFORMATION & TELECOMMUNICATION TECHNOLOGY CENTER
The University of Kansas

ITTC Technology Commercialization

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ITTC's Mission

FOCUS on RESEARCH:

To advance knowledge and create innovative technologies in information systems, network and communications, bioinformatics, and radar;

FOCUS on STUDENTS:

To educate and train students for technology leadership;

FOCUS on ECONOMIC DEVELOPMENT:

To transfer knowledge and innovative technologies to Kansas companies and national industries—by providing an excellent interdisciplinary research and development environment.

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ECONOMIC DEVELOPMENT

and

ITTC

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Measuring ITTC Success

- ITTC Commercialization activity *at least triples and often quadruples AUTM national average*
- 48 companies supported, 110 invention disclosures, 28 license agreements, 21 patents and 6 spin-offs from 2000-2010, Contributed to developing 38 new technologies commercialized in KS

AUTM Metric /$10M Expenditures	Patents	Invention Disclosures	Licenses and Options	Startups
All Universities	1.48	4.97	1.16	0.15
KU Peer Average	2.15	4.07	0.97	0.13
ITTC Peer Average	3.35	6.98	3.48	0.13
ITTC Average	**7.41**	**17.65**	**5.17**	**0.72**

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Recently Issued Patents

- ***Method and Apparatus for Use of III-Nitride Wide Bandgap Semiconductors in Optical Communications.*** U. S. Patent 7,345,812 (March 2008)
- ***Laser System for Photonic Excitation Investigation.*** U.S. Patent 7,525,724 (April 2009)
- ***Method of Classifying Data using Shallow Feature Selection.*** U.S. Patent 7,505,866 (March 2009)
- ***Virtual Short Circuit for Providing Reference Signal in RFID Tag.*** U.S. Patent 7,505,001 (March 2009)
- **Inductive Coupled Feed Structure & Matching Circuit for RFID Device.** U.S. Patent 7,557,757 (July 2009)
- **Automated Data Entry System.** U.S. Patent 7,595,545 (Sept 2009)
- **Computationally Efficient Adaptive Radar Pulse Compression,** U.S. Patent 7,602,331 (Oct 2009)

Current Technology Opportunities

- Duet-on-Pitch
- ~~MetaJuris~~ - Legal Research Web Search Engine
- Polarization Mode Dispersion (PMD) monitor
- SmartXAutofill

- BioCad (Shallow Feature Selection)
- Java Start-up Accelerator
- Source Affine Image Reconstruction (SAFFIRE) for EEG/MEG Imaging
- Abstract Interpretation of Rosetta Specifications -- Phase II
- KU RFID Tags
- KU Agile Radio

Duet-on-Pitch Approach

A personal computer equipped with a sound card and a microphone could run Duet-on-Pitch software.

The algorithm provides accurate, real-time pitch measurements of two voices captured by a single microphone.

Acapella (no instrument accompaniment) duets are incredibly challenging, even or professional singers. Computer singing games, like *Karaoke Revolution*, could add duet competitions without additional microphones

Legal Research Web Search Engine

Users provide keywords for cases, statutes and literature citations.

The app can then creates and submits queries to multiple legal databases. It integrates and displays search results.

For each hit, the app displays the case name (statute name or article title), date, snippet and a link to the relevant citation.

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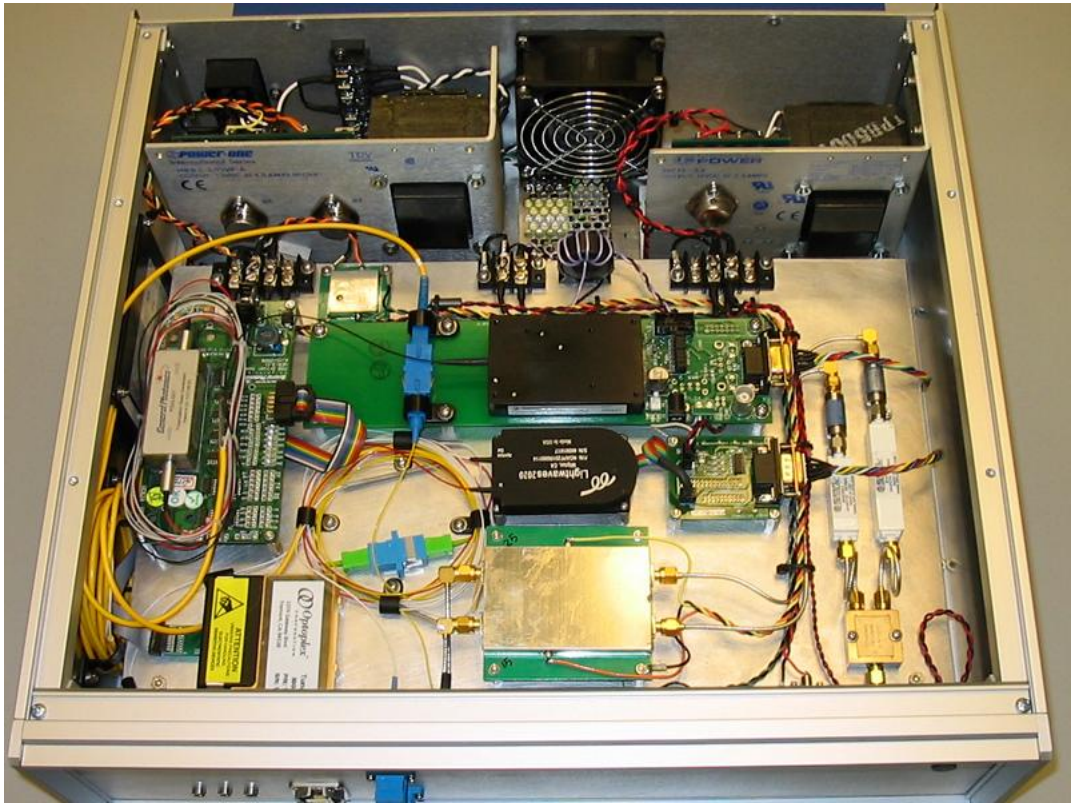
Polarization Mode Dispersion (PMD) monitor



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An Intelligent data entry assistant for XML documents

- ✓ Incorporates approximate predictive techniques from Artificial Intelligence to predict values of XML fields
- ✓ Learns and adapts itself to the any XML domain
- ✓ Supports complex XML grammars
- ✓ Predicts, suggests and autofills data for XML documents
- ✓ Saves time and effort needed for the data entry process
- ✓ Patented

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