Models for Joint University/Industry Collaborations

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University of Kansas
ITTC Products

- Students
- Technology
  - Software
  - Hardware prototypes
  - Patents
  - Licences
- Technical reports
- Publications
  - Conferences
  - Journals
  - Workshops
Direct Sponsored Research

• Conducted by:
  – ITTC Faculty
  – KU/ITTC Students
  – ITTC Staff

• Conducted on Campus

• Monitored by Industry Program Managers
Typical Project Costs

• Duration: One year
  (Prefer two-three year efforts)

• Approximate Cost breakdown ($100,000 total)
  – Students                     --> 40%
  – Faculty (1)                 --> 10%
  – Technical Staff          --> 5%
  – Secretary                   --> 5%
  – Computing/Network --> 5%
  – Travel                        --> 2%
  – Fringe benefits           --> 5%
  – Overhead                   --> 28% (45% of all direct costs)
Joint Research

• Conducted by:
  – ITTC Faculty
  – KU/ITTC Students
  – ITTC Staff
  – Industrial Partners

• Conducted at:
  – KU
  – Industrial Site
Joint Development

• Short term
• Conducted by:
  – ITTC Faculty
  – KU/ITTC Students
  – ITTC Staff
  – Industrial Partners
• Conducted at:
  – KU
  – Industrial Site
Summer Interns

• KU/ITTC Students at industrial site for the summer
• Academic year continuation of summer’s project
Industry Sponsored Graduate Fellowships

• Student is employee of the company
• Student is full time on campus
• Thesis topic can be jointly selected by the student, faculty advisor and industrial partners, often directly related to company’s sponsored ITTC research
• Contractual requirement for student to return to the company upon completion of thesis
Part Time Degree Program

• Student is employee of the company
• Student is part time on campus
• Thesis topic can be jointly selected by the student, faculty advisor and industrial partners, often directly related to company’s sponsored ITTC research
Industrial Affiliates Program

• Unrestricted (no overhead) donation to ITTC for:
  – The industrial liaison functions, including the annual workshop and faculty visits to affiliate companies
  – To improve ITTC's infrastructure for telecommunications and information sciences research and academic programs
  – Support distinguished visitors from industry and academia
  – Support faculty participation in national and international workshops and conferences
  – Provide scholarships for outstanding ITTC students
ITTC Industrial Consortium (proposed)

• Support is from:
  – ITTC Industrial Partners
  – KTEC

• Industrial Partners and ITTC Faculty Select Specific Projects to Pursue

• Consortium projects have deliverables
Others

• ITTC can provide in-house short courses
  – Simulation of Communications Systems
  – Digital Signal Processing
  – Introduction to Communications Networks
  – Wireless Communications Systems
  – Artificial Intelligence

• Faculty Consulting
Conclusion

- ITTC has a successful track record of working with industry
- ITTC has many mechanisms for joint University/Industry collaborations
- Technology transfer and intellectual property issues will be addressed by Tim Johnson