Agenda

I. Welcome, Introductions and Announcements
   Special welcome to new board members
   Jay Scott, Assistant Director, Career, Standards & Assessment Services, KSDE, Replacing Robin Utz (Harris)
   Brad Dillon, REAP Vice-Chair Commissioner (Reno County Commissioner and attorney with Gilliland & Hayes)
   Deb Scheibler, Executive Director, Kansas WorkforceONE, replacing Bob Dalke, retired

II. Approval of Agenda
   Recommended Action: Approve or modify agenda as needed.

III. Approval of Minutes from April 10, 2012, Board of Directors Meeting (p. 2-3)
   Recommended Action: Approve or modify minutes as needed.

IV. Report and approval of Minutes from June 15, 2012, Executive Committee Meeting (p. 4-5)
   Recommended Action: Approve or modify minutes as needed. (Executive Committee only)

V. Technical Advisory Panel member substitutions for June proposal evaluation (p. 6)
   Recommended Action: Receive report and file.

VI. Board Composition, Resignations and Vacant Positions (p. 7-8)
   Recommended Action: Provide board candidate nominations to staff for review by the Executive Committee.

VII. CIEE Funding Update Reports
   A. Energy Sector Partnership and Training Grant (p. 9)
   B. Jobs and Innovation Accelerator Challenge (JIAC) {p. 9-11 and p. 14-23}
   C. Kansas Engineering Excellence Project (KEEP) (p. 11)
   D. Open Positions (p. 11)
   Recommended Action: Receive reports and file.

VIII. Recommendation from Executive Committee for funding competitive proposals (p. 12-13 and p. 24-26)
   The Executive Committee recommends to the Board of Directors to fund three competitive technology development and business counseling grants listed below for the total amount of $149,500 pending successful contract negotiations, legal review, and availability of funds:
   A. Tony Guhr, $50,000, Application of Recycled Carbon Fiber for Manufacturing of Injection Molded, Compression Molded, and co-mingled Composited Parts
   B. Colin Snyder, $49,500, Overbraided Carbon Fiber Reinforced Thermoplastic Wheels for Automotive Fuel Efficiency Improvement
   C. Nicholas Bennington, $50,000, Ultra-High Internal Combustion Engine via the “Grail Cycle.”
      Award is contingent on final scope of work that includes detailed, itemized scope of work to be presented to the EC and technical experts for review before contract is finalized. (Fornaro-Dean/Dugan)

IX. Adjourn (Noon)

Next Meeting:
October 9, 2012, WSU Marcus Welcome Center, Room 102 from 10:30 a.m. to Noon
III. Approval of Minutes from April 10, 2012 Board of Directors Meeting

Please note the additional footnotes on the second page of the minutes. These were added for transparency related to the budgets for the projects.

Recommended Action: Approve or modify minutes as needed.
Report was received by Board of the personnel changes in the Technical Advisory Panel who reviewed the competitive solicitation. Report was received and filed.

VII. CIEE Funding Update Reports
A. Energy Sector Partnership and Training Grant
B. Jobs and Innovation Accelerator Challenge (JiAC)
C. Kansas Engineering Excellence Project (KEEP)
D. Open CIEE Staff Positions
E. GAO Best Practice Report

Staff provided an update on the funding received by the CIEE and awards that have been made. The JiAC Advisory Boards were discussed and nominees reviewed.

**Recommended Action A: Approve nominations to the JiAC Advisory Board.** (Alfaro/Berger)

Nominations for Advisory Board were approved. Reports were received and file.

VIII. Recommendation for the Executive Committee for funding competitive proposals

Executive Committee brought the following recommendations related to the competitive proposals to the Board for their consideration.

**Recommendation A: Executive Committee recommends to the Board of Directors to fund**
Ramazan Asmatulu, Nanocomposite Spheres for Self-healing of Composites Wind Turbine Blades Faculty-Business Fellowship proposal in the amount of $20,000.00 with the stipulation that business counseling support is solicited, alternate market applications are investigated and pending availability of funds. (Lawing/Krone)

**Recommendation B: Executive Committee recommends to the Board of Directors to fund three competitive technology development and business counseling grants listed below in the total amount of $144,020.00 pending successful contract negotiations, legal review and availability of funds.**

a) Ross Jordan, Ocianna International, $49,975.00, Mooring and/or anchoring product for water based shallow and deep-water vessels. (Dugan/Lovitt)

b) Vis Madhavan, Fairmount Technologies, $44,045.00, Parametric Study of Stretch Roll Forming Processes using Experiments and Finite Element Analysis. (Lovitt/Krone)

c) Joel Thompson, Mid-Continent Composites, $50,000.00, Master tooling for Model 206E ‘Escape’ Prototype Aircraft, and innovator should seek engineering expertise/assistance from NIAR, the WSU Engineering staff or other CIEE collaborative partners. (Lawing/Lovitt)

Recommendation A and Ba, Bb, Bc above were approved by separate vote. Sullivan abstained from voting on the Asmatulu recommendation, Pett abstained from voting on the Madhavan recommendation and Krone abstained from voting on the Thompson recommendation due to potential conflicts of interest. The remaining grant proceeds were approved to be carried over to the next round of proposals.

Discussion followed on how to proceed with the third competitive proposal. Staff was instructed to conduct a third competitive round so that the recommendations could be considered at the July 10, 2012 Board meeting.

IX. Adjourn (Noon)

**Next Meeting:** July 10, 2012, WSU Marcus Welcome Center, Room 102 from 10:30 a.m. to Noon

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1 Approximately 25 percent of the grant proceeds will fund WSU laboratory expertise and services and the balance of the proceeds will be used by Ocianna for product development.

2 Approximately 10 percent of the grant proceeds will fund WSU laboratory expertise and services and the balance of the proceeds will be used by Fairmount Technologies for product and process development.
IV. Report and approval of Minutes from June 15, 2012 Executive Committee

**Recommended Action:** Approve or modify minutes as needed. *(Executive Committee members only)*

### Meeting Topics and Discussion:

I. Welcome and Introduction

Darrel Dugan opened the meeting with a welcome and Executive Committee (EC) member introductions including introduction of Kristen Stiegler as the new administrative assistant for CIEE.

II. Innovation Competition administrative discussion (1:38 pm)

Staff explained the proposal documents and meeting outline, as well as, competition proceedings. Discussion followed about procedure for soliciting input from the EC members who were not in attendance.

*Executive Committee recommends a summary of the meetings decisions and recommendations be shared with the executive committee members who were not in attendance and solicit their input and or concurrence prior to submitting the recommendations to the Board of Directors.* *(Fornaro-Dean/Dugan)*

III. Innovation Competition: Finalist Proposals (1:44pm)

Five finalists were scheduled to present their proposals and answer questions from the EC members, however, only four finalists actually presented. In addition, two applicants had substitutes due to their unexpected inability to present. EC members confidentially discussed each proposal after each innovator had exited the room.
Proposal Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>First Name</th>
<th>Last Name</th>
<th>Title</th>
<th>Proposal Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:45</td>
<td>Tony</td>
<td>Guhr</td>
<td>President</td>
<td>Application of Recycled Carbon Fiber for Manufacturing of Injection Molded, Compression Molded, and Co-mingled Composite Parts</td>
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<tr>
<td>2:10</td>
<td>Isaac</td>
<td>Spear</td>
<td>President</td>
<td>Autonomous Unmanned Aerial Vehicles (AUAV) No show</td>
</tr>
<tr>
<td>2:30</td>
<td>David</td>
<td>Leben</td>
<td>Vice President</td>
<td>Firefly (Mr. Frank Corega presenting)</td>
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<tr>
<td>2:50</td>
<td>Break</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3:00</td>
<td>Colin</td>
<td>Snyder</td>
<td>Project Coordinator and Engineer</td>
<td>Overbraided Carbon Fiber Reinforced Thermoplastic Wheels for Automotive Fuel Efficiency Improvement</td>
</tr>
<tr>
<td>3:20</td>
<td>Nicholas</td>
<td>Bennington</td>
<td>President</td>
<td>Ultra-High Efficiency Internal Combustion Engine via the “Grail Cycle” (Mr. Rich Duncan presenting)</td>
</tr>
</tbody>
</table>

The EC recommends to the Board of Directors to fund three competitive technology development and business counseling grants listed below for the total amount of $149,500 pending successful contract negotiations, legal review, and availability of funds:

A. Tony Guhr, $50,000, Application of Recycled Carbon Fiber for Manufacturing of Injection Molded, Compression Molded, and co-mingled Composited Parts

B. Colin Snyder, $49,500, Overbraided Carbon Fiber Reinforced Thermoplastic Wheels for Automotive Fuel Efficiency Improvement

C. Nicholas Bennington, $50,000, Ultra-High Internal Combustion Engine via the “Grail Cycle.” Award is contingent on final scope of work that includes detailed, itemized scope of work to be presented to the EC and technical experts for review before contract is finalized. (Fornaro-Dean/Dugan)

Meeting Adjourned (4:10 pm)

Applicants whose proposals were not recommended by the EC will be notified by email on July 11, 2012. Applicants will be provided their proposals metrics scores and encouraged to visit CIEE staff for further feedback and debriefing.

Next CIEE Board Engagements:

Full Board, Tuesday, July 10, 2012, WSU Marcus Welcome Center, Room 102 (Clark) from 10:30 a.m. to Noon.

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1 Approximately 70 percent of the grant proceeds will fund WSU laboratory expertise and services and the balance of the proceeds will be used by Guhr (CFR) to support the Scope of Work for product and process development.

2 Approximately 10 percent of the grant proceeds will fund WSU laboratory expertise and services and the balance of the proceeds will be used by Snyder (Momentum Wheels) to support the scope of work for product and process development.

3 Distribution of proceeds contingent on final scope of work.
V. Technical Advisory Panel member substitutions for April proposal evaluation

*Recommend Action: Receive report and file.*

**Technical Advisory Board Members**

June 10 and 11, 2012

**Wichita State University, Four Nominees**

- **Don Malzahn**, (for Hyuck Kwon who is on professional sabbatical), *Title: Professor, Nomination: College of Engineering Strategic Planning Committee, Substitution by CFE Executive nomination*

- **Jame Wolff** (for Chris Broberg), *Title: Assistant Professor of Management and Entrepreneurship, Classification: Center for Entrepreneurship, Substitution by CFE Executive nomination*

- **Krishna Krishnan**, *Title: Professor, Classification: College of Engineering, Nomination: College of Engineering Strategic Planning Committee*

- **Paul Jonas**, *Title: Director/Environmental Testing Laboratories & Special Programs, NIAR, Nomination: Executive nomination*

**Economic Development, Four Members**

- **Clint Siebel**, *Title: Executive Director, Classification: Economic Development, Nomination: SCKEDD’s Board selected four economic developers to nominate*

- **Sandra Ring** (for Kerri Falletti), *Title: Program Manager, Classification: Economic Development, Substitution by SCKEDD’s director*

- **Harland Priddle**, *Title: Executive Director, Classification: Economic Development, Nomination: SCKEDD’s Board selected four economic developers to nominate*

- **Bill Bolin**, *Title: Executive Director, Classification: Economic Development, Nomination: SCKEDD’s Board selected four economic developers to nominate*

**Community College, Four Nominees**

- **Kris Estes**, (Gene George), *Title: Associate Dean, Career and Technical Education/Advanced Technology Center, Classification: Butler County Community College, Nomination: Executive nomination, Substitution by executive nomination*

- **Joe Clasen**, *Title: Director of Non-Destructive Education, Classification: Cowley County Community College, Nomination: Executive nomination*

- **Steve Porter**, *Title: Vice President - Workforce Development and Outreach, Classification: Hutchinson County Community College, Nomination: Executive nomination*

- **Ron Ragon**, *Title: Faculty, Classification: Wichita Area Technical College, Nomination: Executive nomination*

**At-Large, Four Nominees**

- **Alan Badgely**, *Title: KSBDC Consultant, Classification: Kansas Small Business Development Center, Nomination: Executive nomination*

- **Tyler Brown**, *Title: Chief Information Officer, Leslie Rudd Investment Company, Inc., Nomination: Executive nomination*

- **Robyn Heinz**, (for Kathy Smith) *Title: Vornado, Human Resource Director, Classification: Private industry representation, Nomination: Keith Lawing, WA, CIEE Board nomination, Substitution by WA Executive nomination*

- **Aaron Smith**, *Title: Dell Services Engineering Solutions, Classification: Private industry representation, Nomination: Rick Willardson, Dell, CIEE Board nomination*
VI. Board Composition

A. New Board Members
i. Jay Scott serving in the K-12 board position (Assistant Director, Career, Standards & Assessment Services, Kansas State Department of Education, Replacing Robin Utz (Harris))
ii. David Unruh serving in the REAP Chair board position (Sedgwick County Commissioner District 1, Replacing Kristey Williams)
iii. Brad Dillon serving in the REAP Vice-Chair position (Reno County Commissioner and attorney with Gilliland & Hayes, P.A., Replacing Dave Unruh)
iv. Deb Scheibler serving in the Kansas WorkforceONE board position, replacing Bob Dalke, retired

B. Board Resignations

From: Richard Sullivan [mailto:rich.sullivan1@att.net]
Sent: Sunday, June 24, 2012 1:15 PM
To: Franklin, Debra
Subject: CIEE Board of Directors Resignation

Dear Debbie,

It is with great regret that I submit my resignation as a member of CIEE's Board of Directors. Since I am no longer the President & CEO of CiBOR, I and my family will be moving back to our lake house in South Carolina. As such I don't believe I could adequately serve the CIEE organization.

I have very much enjoyed serving on the CIEE board and wish you and the organization much success in the future.

Best regards,

Rich Sullivan

From: Gegen, Sherry
Sent: Thursday, July 05, 2012 12:09 PM
To: Franklin, Debra
Subject: CIEE Board of Directors

CIEE Board of Directors-

I would like to inform you that I am now a staff member to the CIEE and therefore need to resign from my position as a Board Member.

Respectfully-

Sherry Gegen
Center for Innovation and Enterprise Engagement
Wichita State University
1845 Fairmount St.
Wichita, KS 67260-0044

(316) 978-6359 office
(316) 737-0547 cell
Sherry.Gegen@wichita.edu
www.wichita.edu/ciee
C. Vacant Positions
   i. Vacant Board seat for Financial/Investor
   ii. Non-Aviation Advanced Manufacturing, resignation of Rich Sullivan
   iii. Kansas Department of Commerce, resignation of Sherry Gegen

   **Recommended Action:** Provide board candidate nominations to staff for review by the Executive Committee.

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**CIEE Bylaws, Article II: Membership and Officers, Section 4: Vacancies (p. 3)**

The Board may declare a vacancy if a member is of unsound mind by an order of the court, or convicted of felony, or for any other proper cause, or if within 60 days after notice of selection, the member does not accept such position either by writing or by attending a meeting of the Board.

Any vacancy or vacancies in the Board because of death, resignation, removal in any manner, disqualification, an increase in the number of members, or any other cause, may be filled by the Board based upon nominations presented at any regular or special meeting; and each person so elected shall be a member to serve for the balance of the unexpired term of the Center.

A two-thirds vote by the Board is needed to confirm a candidate to a position in the Board.

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**CIEE Bylaws, Article III: Meetings, Section 4: Attendance (p. 4)**

If any Board member fails to attend three consecutive regular meetings without extenuating circumstances, the Board Co-chairperson(s) shall recommend that the member be removed and this action must be voted on by a quorum of the Board.
VII. CIEE Funding Update Reports

A. Energy Sector Partnership and Training Grant, $102K for eight industrial energy system analyst internships for four semesters – through December 2012. This program may receive a no cost extension that would enable an additional semester of engagement.

Summer 2012 anticipate four student interns

B. Jobs and Innovation Accelerator Challenge (JIAC)
   i. Report of funding status
      • Department of Commerce Economic Development Administration, received funding, submitted budget modification, March 24, 3012 and received approval on Fri 4/27/2012 4:33 PM ($849K)
      • Department of Labor Employment and Training, received funding ($1M)
      • Small Business Administration, received funding ($144K)
   
   ii. JIAC Advisory Board Nominations
      Initial meetings of the Advisory Boards were conducted in May 2012.
      See pages 14-16 for listing of advisory board members and meeting agenda

   iii. Industry Roundtable Events
      a. June 13, 2012, Lender’s Forum with CIEE Collaborative Partners: SBA, Network Kansas, KSBDC, Score, etc., WSU Marcus Welcome Center
         • Content included an update on SBA’s most popular loan programs, as well as helpful tips on eligibility issues, loan servicing and liquidation, and the guaranty purchase process.
         • 28 Attendees
         • Announcement and minutes on pages 17-19 of packet
         • Additional information on the Industry Roundtable/Lender’s Forum can be found at the following web link.
           http://webs.wichita.edu/?u=ciee&p=/Business_and_Industry_Engagement/SBA_Lenders_Roundtable/

      b. June 12, Engineer Career & Resource Fair
         • Content included a forum for job seekers and business with positions to fill to meet. Additional resources were available for workers who wanted to further their education and/or add skills.
         • 122 Attendees
         • Announcement on page 20 of packet
         • Additional information on the Engineering Career & Resource Fair can be found at the following web link.
           http://webs.wichita.edu/?u=ciee&p=/Business_and_Industry_Engagement/Engineer_s_Career_Fair/
c. May 15, 2012 SBA HUBZone workshop
   - Content of workshop included eligibility requirements and benefits of HUBZone programs as well as discussions of other topics related small and medium sized business programs and concerns.
   - 8 Attendees
   - Announcement on page 21 of packet
   - Additional information on the HUBZone workshop can be found at the following web link.
     http://webs.wichita.edu/?u=ciee&p=/Business_and_Industry_Engagement/HUBZone_Event/

d. May 14-16, Workshop: Energy/materials Dimension of Engineering in Evidence-Based Healthcare
   - Conference introduces an important new area for energy improvement in hospitals – the energy and material use link to patient outcome decisions and alternatives.
   - 39 Attendees
   - Synopsis can be found on page 22 of packet
   - Additional information on the Workshop can be found at the following web link.
     http://webs.wichita.edu/?u=ciee&p=/Business_and_Industry_Engagement/IME_Patients_Energy_Sustainability/

e. August 14, 2012, Business Matchmaker at the WSU Metropolitan Complex
   - The Wichita State University, the SBA Wichita District Office and event co-sponsors are anticipating 300 small businesses and approximately 100 buyers from government agencies and prime contractors. This event will provide a forum for buyers and sellers to meet for one-on-one meetings, matching buyer requirements with seller capabilities. Purchasing representatives from organizations like Boeing, Hawker Beechcraft, Spirit AeroSystems, McConnell Air Force Base, the State of Kansas, the City of Wichita, Sedgwick County and Wichita Public Schools have indicated plans to attend. Breakout sessions in core areas integral for strong and growing businesses will also be offered at the conference. Topics such as financing, exporting, government contracting, SBA Business Development Programs, aerospace purchasing requirements, and innovation are planned.

   See page 23 of agenda packet for announcement.
   Additional information on the Business Matchmaker can be found at the following web link. www.KansasBizMatch.com

f. Tentative: September 13, 2012, Finance Options Business Development Training with self-certified small disadvantaged business to include HUB Zone and 8a business development funds will be held at the WSU Marcus Welcome Center

iv. **JIAC EDA Competitive solicitation of proposals - previous awards**
   - Competitive Solicitations – preselected technologies
- TSI/AvPro – canceled per February 20, 2012 phone call, failed to agree on terms of contract – scope of work
- JR Custom Metal Products, strategic planning and metalizing technology development – partially executed contract emailed on March 26, 2012
- Andrew Spear/Wichita Technology Corporation, business counseling – contract executed on April 4, 2012

- Competitive Solicitations – Announced January 10, 2012
  - Nitride Solutions, development of a high-volume, low-cost platform process to produce single-crystal nitride substrates – contract executed on March 27, 2012
  - Dr. Michael McCoy/Cessna, developing budget and staffing plan, coordinating with KBOR and industry partners regarding intellectual property. Two students working on this project during the summer

- Competitive Solicitations – Announced on April 11, 2012
  - Ocianna, development of a mooring and/or anchoring product for water-based vessels, draft contract pending legal review and EDA review
  - Fairmount Technologies, development of a parametric study of stretch roll forming processes using experiments and finite element analysis, draft contract pending legal review and EDA review
  - Mid-Continent Composites, accelerated fabrication of a full scale prototype of a unique Light Sport Aircraft (LSA), draft contract pending legal review and EDA review

- Competitive Solicitations to be announced on July 11, 2012
  - Funding available for allocation
    - Business proposals – Nine proposals received, six proposals were considered by Executive Committee, three are recommended for funding
    - Executive Committee interviewed semi-finalist innovators on Friday, June 15, 2012
  - Executive Committee recommendations will be considered by CIEE Board of Directors as the final agenda item.

C. Kansas Engineering Excellent Program (KEEP) in collaboration with the Workforce Alliance of South Central Kansas (WA)
   $5M U.S. Department of Labor Employment and Training Administration award that is active through November 2015 (USDOL)
   i. 49 of 100 student scholarships awarded: 24 of 60 BS, 19 of 30 MS, 6 of 10 PhDs
   ii. Competitive internships are available through the KEEP proceeds
   iii. CIEE and Workforce Alliance have a fully executed sub-contract from WA for .5 FTE staff to support the implementation of grant

D. CIEE currently filled two open positions.
   Business and Industry Liaison, Sherry Gegen
   Administrative Assistant, Kris Stiegler

  Recommended Action: Receive reports and file.
VIII. Recommendation from Executive Committee for funding competitive proposals

The third Jobs and Innovation Accelerator competitive solicitations opened on April 24, 2012 and were available for download from the CIEE website with web links to the proposals provided for distribution to collaborative partners, CIEE businesses and partner colleges.

Proposals, in pdf format, were submitted to innovation@wichita.edu on June 9, 2012.

Projects were evaluated by the CIEE Technical Advisory Panel (TAP) on June 11 and June 12 using the scoring rubric provided. The TAP has 16 members with four members from WSU, economic development, community colleges/technical college, and at-large members. Each proposal (randomly selected) was reviewed by two TAP members from each TAP division. Therefore, each proposal was evaluated by eight TAP members.

Top tier of proposals, as determined by TAP scores, advanced to the semi-finals round.

Project innovators that advance to the semi-final round made a 10-minute presentation on Friday afternoon, June 15, 2012 to the CIEE Executive Committee (EC) and technical advisors. The EC brings the following recommendation to the Board of Directors regarding project funding based on the quality of proposals, TAP scoring rubric outcomes, and innovator presentations.

The Executive Committee recommends to the Board of Directors to fund three competitive technology development and business counseling grants listed below for the total amount of $149,500 pending successful contract negotiations, legal review, and availability of funds:

1. **Tony Guhr, $50,000, Application of Recycled Carbon Fiber for Manufacturing of Injection Molded, Compression Molded, and co-mingled Composited Parts** (page 24 of agenda packet)
2. **Colin Snyder, $49,500, Overbraided Carbon Fiber Reinforced Thermoplastic Wheels for Automotive Fuel Efficiency Improvement** (page 25 of agenda packet)
3. **Nicholas Bennington, $50,000, Ultra-High Internal Combustion Engine via the “Grail Cycle.” Award is contingent on final scope of work that includes detailed, itemized scope of work to be presented to the EC and technical experts for review before contract is finalized.** (Fornaro-Dean/Dugan) (page 26 of agenda packet)

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1. The NSF project evaluation handbook was used to benchmark the CIEE evaluation process. [http://www.nsf.gov/pubs/2002/nsf02057/start.htm](http://www.nsf.gov/pubs/2002/nsf02057/start.htm)
2. Approximately 70 percent of the grant proceeds will fund WSU laboratory expertise and services and the balance of the proceeds will be used by Guhr (CFR) to support the Scope of Work for product and process development.
3. Approximately 10 percent of the grant proceeds will fund WSU laboratory expertise and services and the balance of the proceeds will be used by Snyder (Momentum Wheels) to support the scope of work for product and process development.
4. Distribution of proceeds contingent on final scope of work.
Nine Technology Development and Business Counseling Grants applications were submitted, five semi-finalist interviewed and three proposals are recommended for funding. The table below provides a summary of the recommended projects and pages 24-26 contain additional information on the projects.

<table>
<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
<th>Company / Agency</th>
<th>Proposal Title</th>
<th>Funding</th>
<th>Jobs Forecast</th>
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<tbody>
<tr>
<td>Tony</td>
<td>Guhr</td>
<td>Carbon Fiber Remanufacturing</td>
<td>Application of Recycled Carbon Fiber for Manufacturing of Injection Molded, Compression Molded, and Co-mingled Composite Parts</td>
<td>$50,000</td>
<td>Three to five persons will be added or retained for this specialized work. CFR expects to add four to five management positions in the next 12 month period to support product development and customer delivery services from its office in Kansas.</td>
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<tr>
<td>Colin</td>
<td>Snyder</td>
<td>Momentum Wheels, LLC</td>
<td>Overbraided Carbon Fiber Reinforced Thermoplastic Wheels for Automotive Fuel Efficiency Improvement</td>
<td>$49,500</td>
<td>2 jobs</td>
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<td>Nicholas</td>
<td>Bennington</td>
<td>Grail Engine Technologies, Inc.</td>
<td>Ultra-High Efficiency Internal Combustion Engine via the &quot;Grail Cycle&quot;</td>
<td>$50,000</td>
<td>10 to 15 new high technology jobs within two to three years. As additional markets are identified and leasing contracts are in place, estimated employment needs of up to 30 to 40 employees is forecasted.</td>
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Applicants whose proposals were not recommended by the EC will be notified by email on June 11, 2012. Applicants will be provided their proposals metrics scores and encouraged to visit CIEE staff for further feedback and debriefing. Staff will work with firms to support development of their innovation using alternate strategies.
Economic Development Administration (EDA) Innovation Accelerator Advisory Team Agenda

11:00 a.m.  Welcome, Zulma Toro-Ramos, Dean
WSU College of Engineering

Discussion and Advisory Team Input

Overview of CIEE

Overview of Jobs and Innovation Accelerator Challenge and WSU Award

WSU EDA Innovation Accelerator Programs

Partner Updates & Next Steps

Noon  Adjourn

EDA Innovation Accelerator

Co-Lead  Zulma Toro-Ramos
Co-Lead  Marcia Stevens
Econ Dev  Kerri Falletti
WSU CoE  Krishna Krishnan
Minority Chamber  Chester A. Daniel, Urban League of Kansas
Chamber of Commerce  Phyllis Robertson
WSU Entrepreneurship  Chris Broberg
MAMTC  Elaine Hannah
CIEE Staff  Debra Franklin

Next meeting is TBD but within the next 12 months
Employment and Training Administration (ETA) Career Accelerator Advisory Team Agenda

1:00 p.m. Welcome, Zulma Toro-Ramos, Dean Wichita State University (WSU) College of Engineering
Discussion and Advisory Team Input
   Overview of CIEE
   Overview of Jobs and Innovation Accelerator Challenge and WSU Award
   WSU ETA Career Accelerator Programs
Partner Updates and Next Steps

2:00 p.m. Adjourn

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<td>Co-Lead</td>
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<td>Community College</td>
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<td>K-12</td>
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<td>Workforce Investment Board BoD</td>
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<tr>
<td>Student Organization, Student President for Engineering Council,</td>
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<tr>
<td>CIEE Staff</td>
</tr>
</tbody>
</table>

Next meeting in 2012Q4 (Oct-Dec)
Small Business Administration (SBA) Enterprise Accelerator Advisory Team Agenda

2:30 p.m.  Welcome, Zulma Toro-Ramos, Dean
           Wichita State University (WSU) College of Engineering

           Discussion and Advisory Team Input
           Overview of CIEE
           Overview of Jobs and Innovation Accelerator Challenge and WSU Award
           WSU SBA Enterprise Accelerator Program

            Partner Updates and Next Steps

3:30 p.m.  Adjourn

SBA Enterprise Accelerator

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<th>Co-Lead</th>
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<td>CIEE Staff</td>
<td>Debra Franklin</td>
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Next meeting in 2012Q4 (Oct-Dec)
THE LENDER’S ADVANTAGE

May 30, 2012

INFORMATION

Wichita District Office
271 W. Third Street, N.
Suite 2500
Wichita, Kansas 67202
(316) 269-6016 (Fax)
www.sba.gov/ks
Wayne Bell
District Director
(316) 269-6069
wayne.bell@sba.gov

Standard 7(a) Loan
Guaranty Processing Center
6501 Sylvan Road
Citrus Heights, CA 95610
Toll Free: (877) 475-2435
Fax: (916) 735-1975

OR

262 Black Gold Blvd.
Hazard, KY 41701
Phone: (800) 436-0801
Fax: (606) 435-2400

Fresno Loan Servicing Center
Fresno, CA
Phone: (559) 487-5130
Toll Free: (800) 347-0922
Fax: (559) 487-0803

Liquidation & Purchase Center
Herndon, VA
Phone: (703) 487-0283
Toll Free: (877) 488-4364
Fax: (202) 481-4974

Express Programs, P.L.P. &
504 Processing Center
6501 Sylvan Road
Citrus Heights, CA 95610
Phone: (916) 735-1200 or (916) 735-1223
Fax: (916) 735-0640

All SBA programs and services are provided on a nondiscriminatory basis.

SAVE THE DATE!
WICHITA LENDER ROUNDTABLE

We are pleased to announce a Lender Roundtable will be held in Wichita on Wednesday, June 13th, at the Marcus Welcome Center on the campus of Wichita State University. Personnel from SBA’s Wichita District Office will present a brief update on SBA’s most popular loan programs, as well as helpful tips on eligibility issues, loan servicing and liquidation, and the guaranty purchase process.

In addition, the Wichita State University Center for Innovation, the Wichita State University Small Business Development Center, SCORE, Network Kansas, and South Central Kansas Economic Development District (SCKEDD) will provide information on their programs and services that are available to assist you and your small business customers.

WHAT: Lender’s Roundtable

WHEN: Wednesday, June 13, 2012
8:15 a.m. – 11:30 a.m.

WHERE: Wichita State University
1845 Fairmount St., Wichita, KS
Marcus Welcome Center, Room 102
(The Marcus Welcome Center is located on the far northeast corner of campus, just east of Eck Stadium and adjacent to the golf course).

Pre-registration is greatly appreciated. You may register by e-mail (patrick.carney@sba.gov or vanessa.klein@sba.gov) or by fax (316-269-6499). Please provide the following information to pre-register:

Lender Name:
Location Attending:
Number Attending:
Attendees’ Names:


Meeting Topics and Discussion:

I. **Welcome and Introduction**
   *Pat Carney, US Small Business Association (SBA)*

II. **WSU Center for Innovation and Enterprise Engagement**
    *Debra Franklin, Director of Center for Innovation and Enterprise Engagement*

   Introduction to CIEE and how it can enable small businesses. PowerPoint presentation available on CIEE website.

III. **WSU Small Business Development Center**
     *Marcia Stevens, Regional Director*

   Dr. Stevens provided an overview of the center and its services offered, such as, free affordable consultations to small start-ups and existing business. All interested participants must attend an orientation meeting. *Meeting the 3M’s*, which orients would-be business owners to the perils of owning your own business and qualifies attendees for free consultation after the orientation meeting. Dr. Stevens discussed their new program launched: *Business in Motion*—see “Ready, Set, Go” (see flyer on CIEE website). Dr. Stevens emphasized the free services by the center to new business owners that could really benefit their new business.

IV. **Service Core of Retired Executives (SCORE)**
    *Brian Mauden, Chapter Chairman for the Wichita SCORE Chapter 143*

   Mr. Mauden described SCORE as a group of retired business owners from all pursuits who offer counseling, training and mentoring to future business owners.

V. **SBA, Loan Programs**
   *Pat Carney, SBA*

   Mr. Carney explained the resources available to lenders to complete and submit loan applications. He also brought the audience’s attention to several handouts that alerted loan officers of changes to various laws effecting their practice, such as the “Small Loan Advantage: Changes Incorporated into SOP 50 105(E)” Update” Insert and the “American Rehabilitation and Recovery Act” (ARRA) update (see documents on CIEE website).
At the conclusion of Mr. Carney’s part of the presentation, he fielded questions from the audience. One question concerned the use of forms for express lenders using E-Tran and whether the gathering of information from the borrower was different. He advised lenders to continue to gather information as usual since SBA does not review, and submit necessary information into E-Tran. Another question concerned the specific differences between Express or Patriot Express loans. Mr. Carney only offered two differences: the Patriot Express loan required a veteran’s status and offered a higher loan limit than the Express.

SBA PowerPoint presentation available on CIEE website.

VI. Break

VII. SBA Loans Part 2: Issues to Watch Out For
Vanessa Klein, SBA

Ms. Klein explained specific areas needing lenders’ attention when filling out loan applications, e.g.:
- Franchise and affiliations, may not qualify for SBA
- A “yes” on SBA form 912, cannot use Express/Patriot Express
- Tax Verification is same form for IRS Form 4506-T but with SBA logo
- Ownership changes

This was a second part of SBA PowerPoint presentation, which is available on the CIEE website.

VIII. South Central Kansas Economic Development District, SCKEDD (504 Loan Program)
Christie Henry, Microloan Program Manager, and Sandy Ring, 504 Program Manager

Ms. Henry began the presentation with a description of their Microloan Program. Ms. Ring concluded the presentation with details on the 504 Loan Program.

PowerPoint presentation available on CIEE website.

IX. Network Kansas
Eric Pederson, Associate Director for Network Kansas

Mr. Pederson described the Kansas Center for Entrepreneurship and Kansas Capital Multiplier Loan and Venture Funds. He handed out two documents for review (see “Network Kansas presentation” and Multiplier Fund” handout in documents on CIEE website).

X. Wrap Up and Evaluations
Are you an **ENGINEER** looking for employment?
Meet with employers looking to fill open positions.

Do you want to further your education in the **ENGINEERING** field?
Learn about advanced skill development opportunities.

**Engineer’s Career & Resource Fair**

**Tuesday, June 12, 2012**
**4:00 to 7:00 p.m.**
Sedgwick County Extension Office
7001 West 21st Street North - Wichita, KS

**Workforce Centers of South Central Kansas**
150 N. Main, Suite 200 • Wichita, KS 67202 • 316-771-6658
www.workforce-ks.com
SBA's HUBZone Program may open doors for your business!
Learn more at SBA’s Free HUBZone Workshop
May 15, 2012 • 1:00 PM - 4:00 PM
Wichita State University
Marcus Welcome Center, Room 102

- The Historically Underutilized Business Zone program helps small businesses in urban and rural communities gain access to federal procurement opportunities.

- There are about 8,000 small businesses with HUBZone certification.

- In fiscal year 2010, HUBZone certified small businesses received nearly $12 billion in federal contracting dollars, equalling 2.77% of all federal contracts.

For Information contact:
Teri Taylor of the SBA
(316) 269-6566

U.S. Small Business Administration
May 15-16, 2012
Hotel at OldTown Conference Center
Wichita, KS

Workshop: Patients, Energy and Sustainability – The Model of Decision-making for Lower Healthcare Footprints
Funded by: National Science Foundation CMMI 1037961

This conference introduces an important new area for energy improvement in hospitals – the energy and material use link to patient outcome decisions and alternatives. These decisions have energy implications and when alternatives exist, successful patient outcomes can also contribute to a lower hospital carbon footprint. This new area focuses on the direct medical operation or the services of the healthcare facility. In contrast, healthcare development of the hospital structure and the largely non-medical heat, light, cooling, and ventilation have been improved over the last decade and are not covered in this workshop. This leaves the medical operations as a new chapter for energy improvement of hospitals. Direct and indirect energy (energy embodied in materials) are considered.

Organizers:
Janet Twomey, Ph.D. Professor (janet.twomey@wichita.edu)
Michael Overcash, Ph.D. Bloomfield Professor for Sustainable Engineered Systems (mrovercash@earthlink.net)
Department of Industrial and Manufacturing Engineering

For information contact: Jody Hall (Jody.Hall@wichita.edu) 316-978-6472
August 14, 2012 – Register Today!

2012 Kansas Business Matchmaker
Where business and opportunity meet!

Place: Wichita State University Metropolitan Complex
5015 East 29th Street North, Wichita, KS 67260

Time: 8:00 a.m. – 4:30 p.m.

If you are a small business owner or a prime contractor looking for a small business subcontractor, this event is for you! Save the date for an exciting day featuring a keynote address by Wichita-native Phil Ruffin of The Ruffin Companies, business matchmaking, an industry panel on advanced manufacturing, and breakout sessions on topics as diverse as:

- Government contracting
- IRS tax incentives for small businesses
- Business finance options
- International business opportunities (i.e., exporting)
- Innovation and diversification success stories

Registration is $35.00, which includes a boxed lunch.

For more information or to register for the event, go to: www.KansasBizMatch.com.

Cosponsorship Authorization #12-0767-85. SBA’s participation in this cosponsored activity is not an endorsement of the views, opinions, products or services or any cosponsor or other person or entity. All SBA programs and services are extended to the public on a nondiscriminatory basis.

Reasonable arrangements for persons with disabilities will be made if requested at least two weeks in advance Contact Marcia Stevens, Regional Director, KSBDC Wichita State University, 316-978-6621.

The www.KansasBizMatch.com website is provided as a public service under Cosponsorship Authorization# 12-0767-85. It is not an official U.S. government website and may contain links to non-U.S. government information. Inclusion of such links does not constitute or imply endorsement by SBA. SBA is not responsible for the content, accuracy, relevance, timeliness or completeness of linked information. Please use caution when considering a product, service or opinion offered by a linked web site.
Presentation:  WSU CIEEE Competitive Innovation Accelerator Solicitation Committee

Project:  “Application of Recycled Carbon Fiber for Manufacturing of Injection Molded and Compression Molded Composite Parts”

Size of Problem:

<table>
<thead>
<tr>
<th>Year</th>
<th>2009</th>
<th>2012</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material sales</td>
<td>$10.8 B</td>
<td>$13.2 B</td>
<td>$18.6 B</td>
</tr>
<tr>
<td>Waste, 33%</td>
<td>$3.56 B</td>
<td>$4.35 B</td>
<td>$6.13 B</td>
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*Over the first 30 years, the composites and carbon fiber industry developed no recycling programs or solutions. Today, 90% + of the waste materials are delivered to the landfill every day.*

Size of Opportunity:

CFR is offering a worldwide recycling program to all 12 carbon fiber producers and their select customer base (AKSACA, Mitsubishi Rayon, Grafifl, Cytec, Nippon Graphite Fiber, Toray, Formosa Plastics, SABIC, Toho Tenax, Hexcel, SGL, Zoltek).

Fiber Forms Recovered by CFR: 60% - 99% carbon content fiber (dry fiber solutions): Tow, Preform, Wovens, Braids, Detangled, Scrap ends, Off-spec fiber

The Solution:

Develop the technologies and processes to move scrap carbon fiber to “remanufactured” fiber forms preferred by the composites industry.

The Need:

Purpose of the Grant Application: Demonstrate the comparison of mechanical properties between virgin carbon fiber and reclaimed carbon fiber. Conduct the demonstration of performance properties in three most popular composite manufacturing systems:

<table>
<thead>
<tr>
<th>Resin Systems</th>
<th>Manufacturing Systems</th>
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<tbody>
<tr>
<td>Thermoset</td>
<td>Compression Molding</td>
</tr>
<tr>
<td>Thermoplastic</td>
<td>Injection Molding</td>
</tr>
<tr>
<td>Blended resin fiber/ carbon fiber</td>
<td>Wet lay to melt process w/ Compression Molding</td>
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Publish Data Results:

Test data results will show performance comparisons between virgin carbon fiber and recycled carbon fiber in critical areas of:

- Tensile strength (max tension before tearing apart)
- Modulus (measure of stress and strain, elasticity)
- Flexural (ability to resist deformity)

Commercialization:

Commercialization of the Remanufacturing Process. Markets are growing quickly for “reclaimed” carbon fiber and demand proof of performance equal to virgin fiber along with evidence of conservation, sustainability, and “green certification” the fiber forms are from materials 100% diverted from landfills.

CFR can deliver carbon fiber precursor to the composites and textile industries at 6% of the energy over production of virgin fiber (94% savings).

Proof is in the Pudding:

Lowered costs with equal performance. Delivering clear data from coupon testing from this important Grant work will deliver proof to the composites industry waiting for…

- An equally performing high tech fiber
- At a discounted price
- With a green certification sticker attached!

Applicant: Carbon Fiber Remanufacturing, Principal: Tony Guhr
215 S. Main Street, Whitewater, KS 67154 Telephone: 316.799.2166
Momentum Wheels, LLC
Overbraided Carbon Fiber Reinforced Thermoplastic Wheels for Automotive Fuel Efficiency Improvement

Innovation Driver
Recent National Highway Traffic Safety Administration mandates require that from 2012 through 2016 U.S. automakers increase vehicle fuel efficiency by 5% a year, culminating in a fleet average of 54.5 mpg by 2025. Carbon fiber reinforced plastic (CFRP) wheels can help automakers achieve these goals; however, key manufacturing challenges must first be overcome.

Current CFRP Wheels
- Increase fuel efficiency up to 10%
- Reduce weight by 30%
- Retail for $10,000 per set

Current Manufacturing Process
- Aluminum Center - Cost-effective manufacturing process
- CFRP Rim - Cost, labor, time and inspection-intensive

Current CFRP Rim Manufacturing Process

Current Manufacturing Process Shortcomings
1) Converting raw fiber into woven fabric increases the material cost by as much as 40%
2) Ply cutting operation wastes as much as 30% of the fabric
3) Hand preforming is cost, time, and inspection-intensive resulting in low production rates
4) The use of two-part thermostet plastics is time consuming resulting in low production rates
5) Inspection methods are slow, requiring multiple inspection lines to support high rate production

Momentums’ Patent Pending Manufacturing Solution

Momentums’ Improvements
- Overbraiding eliminates the cost and time associated with fabric weaving and ply cutting operations
- Overbraiding significantly reduces the time associated with preforming
- The use of thermoplastic, instead of thermostet resins, significantly reduces molding time and provides recyclability
- Resonance frequency testing significantly reduces inspection time
- Overbraided architecture provides high impact and damage tolerance, improving the wheel’s safety
- Estimated manufacturing cost of $1600 per set
- Assists automotive manufacturers in meeting 54.5 mpg fleet requirement
Wall Street Journal article June 18, 2012

http://online.wsj.com/article/SB1000142405270230344804577407983173717616.html

First Name | Last Name | Company | Proposal Title | Funding | Jobs Forecast
--- | --- | --- | --- | --- | ---
Nicholas | Bennington | Grail Engine Technologies, Inc. | Ultra-High Efficiency Internal Combustion Engine via the "Grail Cycle" | $50,000 | 10 to 15 new high technology jobs within two to three years. As additional markets are identified and leasing contracts are in place, estimated employment needs of up to 30 to 40 employees is forecasted.

Advanced Technology

The Grail Engine two stroke power plant will redefine the Internal combustion engine as we know it. Grail Engine Technologies has created technological advances which have produced two new ground breaking concepts. The first of these is known as Forced Semi-Homogeneous Charged Compression Ignition (FS-HCCI). The second is something we refer to as "The Grail Cycle." This concept is defined as a combination of one type of ignition or homogeneous charged compression ignition while simultaneously operating in the Miller Cycle. No other piston engine on the market can produce this distinctive trait at this time.

The Grail Engine has the potential to be the first two stroke engine that does not exhibit cross contamination of fuel and oil.

With our innovative new engine design, we have been able to make use of a process known as Forced Semi-Homogeneous Charged Compression Ignition (FS-HCCI) and the 'Miller Cycle'. The Grail Engine has the potential to be the first two stroke engine that does not exhibit cross contamination of fuel and oil. This results in lower emissions, yet produces more power and torque using less fuel than larger engines.

Exceedingly Efficient

Grail Engine Technologies has produced a new engine technology that will exceed federal auto emissions while potentially out performing larger engines in both power and efficiency.