

Final Report

Interdisciplinary Education

→ Encouraging Student Entrepreneurship

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Materials Science and Engineering

22 March 2017

Acknowledgments

- ◆ Dean Matt Matsuda – Honors College
- ◆ Paul Gilmore
- ◆ Sunita Kramer
- ◆ Nirav Patel
- ◆ Lori Dars – Office of Economic Dev.
- ◆ Ralph, Richard, Brent → RLA Program!

Outline

- ◆ My Background → Pre-RLA
- ◆ RLA Project Influences and Vision
- ◆ RLA Project Actions and Involvement
- ◆ Conclusions/Observations
- ◆ The Future....



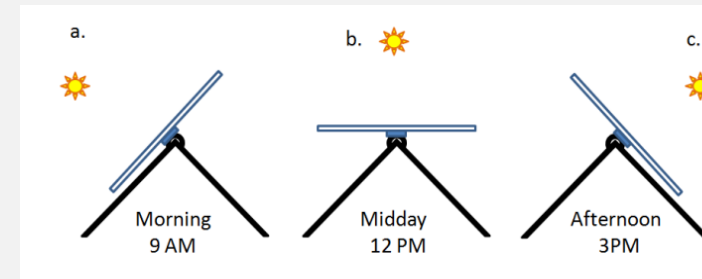
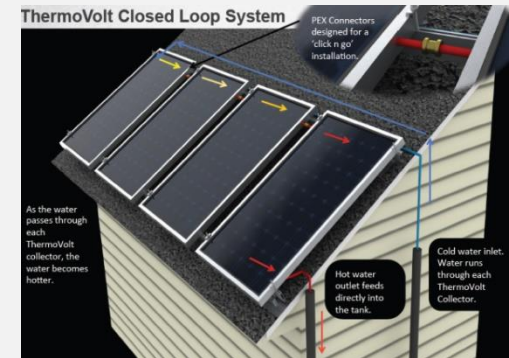
My Background

◆ Interdisciplinary Interests

- Alt-fueled Vehicle Ecosystem
- Solar Power Systems Design
- Honors College “Board”

◆ Innovation Activities

- Innovation Symposia + Sustainability Ctty.
- Patent examples in teaching....
- DOE CleanTech University Prize Contest



RLA Project Influences and Vision

- ◆ Honors College Board Discussions
 - Honors Forum Course
 - Social Entrepreneurship
 - Interdisciplinary Opportunities and Teaming
 - Best and Brightest... starting as Freshmen
- ◆ Feedback about student hesitation about “entrepreneurship” ...with doubts about IP

Developing an Intellectual Property Framework

- ◆ Existing Policy and Limitations
- ◆ Benchmarking and Discussions
 - What do other schools protect?
 - How do *we/they* teach Entrepreneurship?
 - Workshop/Immersion/Case-Study
 - What is IP “standard”



RUTGERS POLICY

Section: 50.3.1

Section Title: Legal Matters

Policy Name: Patent Policy

Formerly Book: 6.4.1

Approval Authority: President

Responsible Executive: Executive Vice President for Academic Affairs

Responsible Office: Office of Academic Affairs

Originally Issued: 9/14/1962

Revisions: 4/1996; 7/1/2013 (Update Approval Authority)

50.3.1 PATENT POLICY OF RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY

The Patent Policy of Rutgers, The State University of New Jersey, was adopted by a resolution of the Board of Governors in 1962. It was amended in 1974, 1986 and 1996.

A. **Scope and Applicability.** Rutgers, The State University of New Jersey is dedicated to the principle of service in the public interest, to excellence in education at all levels, and to

Terms of Existing Policy

Effective July 1, 1996, this policy shall apply to all instructional, research and administrative units of the University, and to the following individuals and conditions. The persons identified in (1), (2), and (3) below shall abide by this patent policy as a condition of employment or study.

1. All University personnel, including but not limited to members of the faculty and staff holding appointments at or employed by the University, persons holding any form of research appointment, visiting professors or visiting scientists with or without salary, undergraduate and graduate students, graduate assistants, teaching assistants, and post-doctoral fellows.
2. All other persons with inventions that result in whole or in part from use of University facilities or resources.



Benchmarking Student IP Policy

October 28th 2016

Department of Materials Science and Engineering

Dr. Dunbar Birnie, III

Benchmarking Example

Pennsylvania System of State Higher Ed.

- General Rule:** Any Intellectual Property (such as undergraduate theses, graduate theses and dissertations, inventions, discoveries, creations and new technologies) conceived or first reduced to practice by a student at the (*insert PASSHE university name*) University of Pennsylvania ("University") as a work product (including homework assignments, laboratory experiments, special and independent study projects) of a "for-credit" course will be **owned by the student**, with three exceptions. These exceptions are:
- Note:** For the technology transfer procedures associated with each of the following scenarios, see Student Technology Transfer Procedures.
- [Faculty Collaboration](#) – When the student collaborates with faculty or staff beyond the standard to create works as part of research or development activities, including non-credit, unpaid work.
- [Material Support](#) – When the student receives staff, salary, facility, or material support **beyond the standard level provided by the University to students**, including non-credit work.
- [Special Situations](#) – In certain courses or special projects when students are presented with the opportunity to participate in projects or activities in which the ownership of any resulting Intellectual Property must be assigned either to the University or to a sponsoring entity as a condition of the student's participation. See [Special Situation Exception Options](#), [Retention and Assignment of Rights in Special Situations](#), and [Acknowledgement by Sponsor](#) for more information.
- In the above exceptions, the University will own the Intellectual Property. In these situations

Purdue University

The clarification titled "Ownership of University **Course-Generated Intellectual Property Created by Students**" clarifies that the University **claims no ownership rights to Course-Generated Intellectual Property created by Purdue students**, provided that:

(A) student innovator(s) made use of resources that are (i) routinely made available by the college/department administering the University course; and (ii) are provided to all students enrolled in the course in an equitable manner;

(B) the relevant student(s) are **not paid** by Purdue University, whether through internal funds or under a grant or contract with a third party; and

(C) **there are no pre-existing obligations** for Purdue in connection with such Course-Generated Intellectual Property.

University of Minnesota

Student-Created Technology. This policy shall not apply to technology created or reduced to practice by University students to fulfill a University course requirement unless (i) the development of the technology was funded, in whole or in part, by an external sponsor; (ii) the technology was an improvement of an invention in which the University holds the intellectual property rights; (iii) a University faculty member or other University employee was a co-inventor of the technology; or (iv) substantial University resources were used to develop or reduce the technology to practice. This policy does not prohibit the University from conditioning participation in a University course or other University-sponsored activity on an individual's assigning to or licensing to the University the rights in technology created or reduced to practice in the course or activity.

Benchmarking Example: Yale

Yale University



Patent Policy for Students

The University Patent Policy is applicable to students as well as to faculty and staff. Like faculty and staff, students' creativity is enhanced by their exposure to the resources (both physical and intellectual) of the University. The University's contribution to that creativity is reflected in the Patent Policy, which provides that inventions will be owned by the University rather than by the individual inventor. The University will, however, disclaim ownership of student inventors' rights as follows.

A student will be deemed to own his or her invention unless it is created:

1. under a sponsored research or other third-party agreement; or
2. within the scope of faculty-supervised graduate thesis or dissertation work; or
3. pursuant to contract work or employment with the University, or an agreement with the University that provides for University ownership; or
4. with the significant use of University resources. Significant use of University resources does not include:
 - (a) participation in University courses; or
 - (b) minimal use of unrestricted Yale funds; or
 - (c) use of commonly available facilities such as student shops, libraries or other general purpose facilities.

In the case of student-owned inventions, the University retains the right to practice the invention for non-commercial research and educational purposes.

My Suggested Documentation:

- ◆ Basic Statement of Student IP Rights
- ◆ Classroom Non-Disclosure Agreement
- ◆ Teaming Agreement
- ◆ External IP-Owner Agreement

My Suggested Documentation:

DRAFT of 1/10/17

Basic Statement of Student Intellectual Property Rights within the Rutgers University System

Students are never obligated to participate in projects or activities that require the assignment of the student's Intellectual Property to the University or to any other entity.

Any Intellectual Property conceived or first reduced to practice by a person before they become a student at the University will be retained by the student.

Any Intellectual Property conceived or first reduced to practice by a student outside of their class work and distinct from any University employment or engagement will be owned by the student.

Any newly created Intellectual Property (such as undergraduate theses, graduate theses or dissertations, inventions, discoveries, creations and new technologies) conceived or first reduced to practice by a student at the University as an educational work product (including homework assignments, laboratory experiments, special and independent study projects) of a for credit course will be owned by the student, with three exceptions. Those exceptions are:

Outline

Any newly created Intellectual Property (such as undergraduate theses, graduate theses or dissertations, inventions, discoveries, creations and new technologies) conceived or first reduced to practice by a student at the University as an educational work product (including homework assignments, laboratory experiments, special and independent study projects) of a for credit course will be owned by the student, with three exceptions. Those exceptions are:

- 1) When the student collaborates with faculty or staff to create works as part of research or development activities, also including non-credit, unpaid work.
- 2) When the student receives material support beyond the standard level provided by the University to students, also including non-credit activity.
- 3) In certain courses or special projects where students are presented with the opportunity to participate in activities in which the ownership of any resulting Intellectual Property must be assigned either to the University or to a sponsoring entity as a condition of the

Summary

- ◆ Based on Benchmarking, **Student IP should be protected**, subject to very reasonable limitations.
- ◆ Open statement of Student IP protection can **enhance our entrepreneurial education impact**
- ◆ Key is **Respect** for Student Ideas

On-going Efforts – Future Work

- ◆ Further advocacy for clearer documentation
- ◆ In-class Entrepreneurism Efforts must be Protected
- ◆ Key is Respect for Student Ideas
- ◆ Working More with the Honors College