I. INTRODUCTION
The Northeastern Pennsylvania Technology Institute is soliciting proposals for research and development (R&D) concepts in technologies related to Assistive Technology/Quality of Life, Advanced Electronics, Embedded Systems, Cyber Security, and Robotics from student led teams.

II. BACKGROUND
Funding will be provided to two types of teams:

1) Teams created around a technology or inventions of a research faculty member, composed of students (graduate and undergraduate).
2) Student teams composed of graduate and/or undergraduate students which are developing new products/technologies related to AT/QoLT. Student teams should be advised by either a faculty member or industry contact.

The overall program objectives are: (A) support the creation of student teams or student/faculty teams which focus on developing new AT/QoLT products and/or services as well as defining the best commercialization path for the technology; (B) develop entrepreneurial skills and interest for the students and faculty involved in the project; (C) find linkages between the AT/QoLT teams and Pennsylvania industry so the team’s work is aligned with current and future market needs.

III. The AT/QoLT CHALLENGE AND OPPORTUNITIES
The demand for AT/QoLT products is significant, but affordability and availability are key barriers for most potential users. A National Institute of Health survey reports more than 2.5 million Americans say they need AT that they do not
have, with 70% citing cost as the primary reason. However, 50% of AT users, and 75% of those with home modifications, report that they paid for the AT themselves or with the help of family members. This means AT/QoLT innovators need not tie their business models exclusively to government or health insurance programs.

AT/QoLT products and services are a growing market with the U.S. demographics shift. The figure above shows the rapid increase in the total number of persons (in millions) age 65 or older. Projections based in census data shows that by 2020, 36% of the U.S. population (or 116 million people) will be over 50 years of age. The health care industry estimates that 1/3 of people over 50 need some type of AT, meaning that over 38 million people will be prospective AT/QoLT customers by 2020.

IV. FUNDING NOTES
Use of PATCI - Phase 1 funds are restricted to one or more of the following purposes, unless given approval by TTC in writing:

- Purchase of materials or supplies necessary to complete the construction and testing of a prototype of the proposed AT/QoLT product
- Rental or lease of design, development and testing equipment (e.g. PCs, workstations, peripheral devices, electronic test and prototyping equipment) necessary for the design and testing of a proof of concept AT/QoLT prototype
- Purchase or leasing of software necessary for prototype design, development, verification, testing and related activities for the AT/QoLT product prototype. This software may include compilers, debuggers, profilers, related program development software
- Purchase or paid access to market survey data, product data, or related services necessary to access the feasibility and market of the proposed AT/QoLT product
- Prize for an AT/QoLT winner of a business plan competition that receives explicit approval is a legitimate University Phase-1 expense

Project funds cannot be used for the following:

- Grant funds may not be used to pay salaries for University faculty, staff or administrators
- Grant funds may not be encumbered with University or other indirect costs

V. PROPOSAL SUBMISSION

Each proposed project must be planned with multiple milestones and simple budget estimate. To support AT/QoLT product prototyping and meaningful progress in the Spring 2010 semester, awards will be for a minimum of $2,500 (to be used before May
Projects can request more that $5,000 with clear outline of how the funds would be used.

Note that additional PATCI funds are available for Spring/Summer 2011. Spring 2011 PATCI proposals can outline how future funds could be used to move the AT/QoLT products ahead and closer to Phase 2 (Commercialization). A clear and realistic vision for Spring 2011 and future work is desirable.

Cross-disciplinary teams are desired. As much as possible, make use of existing courses and programs to help leverage student time and University resources.

Proposals will be accepted December 1 – 21, 2010 as an attached file to e-mail sent to Robert Watts (see below). Proposals must follow the proposal format outlined below. A PATCI Phase 1 Review Panel will evaluate all submitted proposals and make the final decisions on funding. Selection of projects for funding may occur as early as December 21, 2010 and as late as January 4, 2011. All intellectual property involved in the project shall be managed in accordance with University Intellectual Property Guidelines.

Please submit the PATCI Phase 1 proposal using the following format:

(1) Project Name;
(2) Amount of PATCI Phase 1 fund requested
(3) Team Member names and status of each person in the University (student/faculty);
(4) Primary Faculty Point of Contact (F-POC), including phone and e-mail information, and Primary Student Team Point of Contact (S-POC) including phone and e-mail information;
(5) Overview of the Proposed Work (2000 word limit) to include:
   • Summary of proposed concept (including commercial applications)
   • Short review of how the proposed AT/QoLT product or service addresses a market void or unsolved problem
   • Description of project work to be completed before May 15, 2011
   • Brief description of the facilities involved
(6) Project schedule (Gaant chart) – 1 page maximum
(7) Biosketch for the F-POC and S-POC, approximately ½ page for each person
(8) Line-item budget summary of how the PATCI funds will be used on the project

NOTE: Proposals over 8 pages in total length will be rejected.

BRIEFING: The PATCI Phase 1 Review Panel may request the team to present a short briefing (30 minutes) on the proposed effort to help determine awardees.

Questions on the RFP and the PATCI program can be answered by Robert Watts 570 341 8099