General Summary (Purpose) of Position

The purpose of this Post-Doctoral Research Associate is to work closely with faculty, other post-docs, graduate and undergraduate students engaged in research to study the optical fiber sensors, including biosensors, acoustic/pressure sensors, and miniature nanofiber sensors. **Experience in ultrasound generation and detection is highly desired.** The appointment is for 1 year initially, can be extended to a longer term subject to the availability of funds.

Examples of Duties:

1. Provide support for research efforts by:
   - Design, development, construction, and measurement of optical fiber sensors, biosensors and special optical waveguide, circuits, integration systems, and devices.
   - Analysis of applications of designed/fabricated nanostructures.
   - Development of simulation models for tapered fibers, nanofibers, or special waveguide structures.
   - Supervise graduate students, provide guidance and leadership.
   - Maintaining written and stored records about progress and process of research performed.
   - Writing monthly charts and quarterly progress reports.
   - Participating in preparing new research proposals for funding.
   - Preparing manuscripts for publication.

2. Provide for a safe environment by:
   - Managing toxic and hazardous materials in accordance to federal, state and local regulations.
   - Following prescribed safety precautions, University and department rules and regulations.
   - Maintaining work areas in clean, orderly and safe condition.

3. Promote the University’s commitment to customer service by:
   - Building effective partnerships with co-workers throughout the University by freely sharing appropriate information and providing assistance when needed.
   - Ensuring optimum service to all internal and external partners in response to all requests for service and information.
• Maintaining an environment that is welcoming to persons of all backgrounds, nationalities, and roles.

MINIMUM QUALIFICATIONS:
• Ph.D. in electrical engineering, experimental physics, optics, or applied physics or related field at the time of starting the job.
• Experience in ultrasound generation and detection is highly desired.
• Experience in optical waveguide analysis and simulation is highly desired.
• Experience in optical fiber sensor and taper fiber fabrication processing, materials characterization, and excellent hands-on skills and experience in MEMS experiments are highly desirable.
• Ability and interest to pursue challenging, interdisciplinary problems, and good communication and organizational skills.
• Demonstrated oral and written communication skills.
• Ability to work independently, and demonstrate creativity.
• Ability to travel locally and nationally as needed.

Supervision Received: Reports directly to Professor of Electrical and Computer Engineering

Review of applications will begin January 23rd, 2010 and will continue until the position is filled.

The University of Massachusetts Lowell is an Equal Opportunity/Affirmative Action, Title IX, H/V, ADA Employer.