Job Title: Optical Scientist - Optical Waveguides

Reference Number: 280

Scope of Position:

This position is for a research scientist in high data rate optical communication systems group. The preferred candidate should have in-depth knowledge of optical waveguides and components for communication system, including hands-on experience in waveguide materials, design, fabrication, characterization and transmission. In this role, the candidate will have the opportunities to work with multidisciplinary and cross-functional teams, apply fundamental understanding to solve complex problems to support current and future business in optical communications. She or he will be responsible of developing tools and concepts in anticipation of future state of technology for the business, as well as provide troubleshooting support or testing for businesses that do not have the capability. We are looking for someone who can step into the lab and help define and execute laboratory experiments, as well as apply critical thinking and analysis. The scientist will also be responsible for proposing and carrying out future research efforts that support Corning’s current and future businesses in optical communications.

Day to Day Responsibilities:

- Acts as Technical expert or Subject Matter Expert in design and fabrication of optical waveguide for high data rate optical communication;
- Closely work with material scientist to explore and optimize the properties of optical waveguide materials
- Apply state of art techniques, develop novel methods to characterize properties and test transmission performance of the optical waveguides.
- Modifies and develops testing processes to improve evaluation of new products or new properties.
- Document research findings in internal research reports, invention disclosures and refereed publications.
- Makes technical presentations to customers and at conferences.
- Coaches and mentors others in area(s) of expertise.

Travel Requirements: <10%

Hours of work/work schedule/flex-time: 40 hours/week

Required Education: PhD in Optics, Physics or other related majors
Required Skills:

- In-depth knowledge of light propagation in optical waveguide, including optical components, optical fibers and planar waveguides and specialty fibers;
- Knowledge in novel optical material systems, design and fabrication of integrated photonics
- Knowledge in passive and active components in optical communication systems
- Demonstrated hands-on experiences and ability in design and fabrication of optical waveguide and components
- Experiences in numerical simulation tools for light propagation, generation and sensing in optical waveguides In-depth knowledge and experience in characterization and system testing of optical waveguide and components
- Strong problem solving and troubleshooting skills.
- Demonstrated ability to document experimental results in reports and publications.

Job Preference:

- Industry experiences in novel fiber design and fabrication such as SDM is a plus
- Knowledge and experiences in fiber sensor design and fabrication

Soft Skills:

- Must be a team player
- Effective communicator in a variety of formal presentation settings: one-on-one, small and large groups, with peers, direct reports, and management.
- Can effectively deal with changes and uncertainty
- Independent, requiring minimal day-to-day supervision.
- Ability to propose and carry out new research efforts.