

GAYATRI DAS

Phone • [Email](#)

RESEARCH INTERESTS

2D Materials
Graphene
Laser Treatment
Green Energy

TEACHING INTERESTS

Green Energy
Environmental Fluid Mechanics
Machine Design
Laser Treatment

SUMMARY OF QUALIFICATIONS

- Six years of interdisciplinary research in the two-dimensional material fabrication via chemical treatment and their applications
- Proven ability to convert research into high quality publications with # patent disclosure, # refereed journal article publications, and # conference proceedings.
- Highly skilled in chemical, optical, and structural characterization techniques including XPS, XRD, SEM, TEM, AFM, UV Visible, Raman amongst other techniques.
- Trained undergraduate and Master degree candidates on various equipment, and supervised their projects.
- Strong teaching and advising experience gained through communicating with students through Teaching Assistant and Career Leader positions.

EDUCATION

Doctor of Philosophy in Mechanical Engineering, University of Waterloo, Canada. 20XX

Supervisors: Dr. Syd and Dr. Vic

Thesis: *Title of thesis*

Masters of Applied Science in Mechanical Engineering, McMaster, Canada. 20XX

Supervisor: Dr. Xe

Thesis: *Title of thesis*

Bachelor of Applied Science in Mechanical Engineering, McGill University, Canada. 20XX

RESEARCH EXPERIENCE

Doctoral Research, University of Waterloo, Waterloo, ON September 20XX-present

- Performed characterization on the nanoparticles using chemical, optical, and structural characterization techniques to analyze the yielded properties.
- Integrated chlorinated graphene nanoparticles into perovskite solar cells using novel femtosecond technique to increase the solar cell stability in humidity by 70%.
- Innovated..

Masters Research, McMaster University, Hamilton, ON September 20XX – August 20XX

- What + how + why
- What + how + why
- What + how + why

PUBLICATIONS

Refereed journals

1. **Gayatri Das**, Second Author, Third Author, Fourth Author, Fifth Author, Sixth Author, Seventh Author, Eighth Author, and Ninth Author. "Article Title" Journal Title, vol, page number (20XX)
2. First Author, **Gayatri Das**, and Third Author. "Article Title" Journal Title 6, 120701 (20XX);
<https://doi.org/10.1063/1.5067250>.
3. First Author, Second Author, **Gayatri Das**, Fourth Author, Fifth Author, and Sixth Author. "Article Title" Journal Title, vol, page number, (20XX)
4. **Gayatri Das**, Second Author, Third Author, Fourth Author, Fifth Author, Sixth Author, Seventh Author, Eighth Author, and Ninth Author. "Article Title" Journal Title, vol, page number (20XX)
5. **Gayatri Das**, Second Author, Third Author, Fourth Author, Fifth Author, Sixth Author, Seventh Author, Eighth Author, and Ninth Author. "Article Title" Journal Title, vol, page number (20XX)
6. **Gayatri Das**, Second Author, Third Author, Fourth Author, Fifth Author, Sixth Author, Seventh Author, Eighth Author, and Ninth Author. "Article Title" Journal Title, vol, page number (20XX)
- 7.

Refereed Conferences Presentation

1. **Gayatri Das**. "Presentation title." Name of Conference. Location. Date
2. **Gayatri Das**. "Presentation title." Name of Conference. Location. Date
3. **Gayatri Das**. "Presentation title." Name of Conference. Location. Date
4. **Gayatri Das**. "Presentation title." Name of Conference. Location. Date

Refereed Conferences Poster Presentation

5. **Gayatri Das**. "Poster title." Name of Conference. Location. Date
6. **Gayatri Das**. "Poster title." Name of Conference. Location. Date
7. **Gayatri Das**. "Poster title." Name of Conference. Location. Date
8. **Gayatri Das**. "Poster title." Name of Conference. Location. Date

Patent - Technology disclosure:

Gayatri Das, Second author, Third author, Fourth author, and Fifth author (20XX). Title of Patent. US Patent, Serial # by the USPTO

Seminars

1. **Gayatri Das**, (20XX) Title of Seminar. Conference name.
2. **Gayatri Das**, (20XX) Title of Seminar. Conference name.
3. **Gayatri Das**, (20XX) Title of Seminar. Conference name.
4. **Gayatri Das**, (20XX) Title of Seminar. Conference name.

SELECT SCHOLARSHIPS

- Tyler Lewis Clean Energy Award (\$10,000) January 20XX to January 20XX
- Waterloo Institute of Nanotechnology Award (\$10,000) September 20XX to May 20XX
- NSERC Doctoral Award (\$25,000) September 20XX to August 20XX

PROFESSIONALIZATION

- Relevant courses: Solid state physics and chemistry
- Additional courses: Project Management and Leadership and Management courses

INDUSTRY EXPERIENCE

Associate Engineer, Place, Location July 20xx

- Led the engineering team constructing the new library on campus by adjusting the library layout to make the library ergonomically efficient.
- Studied layouts of world-renowned university libraries to use for the implementation and design of library efficiency.

Intern Engineer, Place, Location August 20XX

- What + How + Why
- What + How + Why

Daihatsu Egypt, Cairo, Egypt: Intern Engineer August 20XX

- What + How + Why
- What + How + Why

TEACHING EXPERIENCE

Graduate Sessional Instructor

Department of Mechanical Engineering, University of Waterloo September 20XX - April 20XX

Name of Course

Name of Course

- Redesigned both components of the second-year course, including determining learning objectives, assessment methods, and choosing appropriate readings
- Created lesson plans using a systematic interactive approach to maximize student engagement

Undergraduate Research Supervisor

Department of Mechanical Engineering, University of Waterloo May 20XX-August 20XX

- Designed undergraduate research projects in collaboration with undergraduate researchers to facilitate learning for students
- Mentored students through the research process, including facilitating the development of independent problem-solving skills

Undergraduate Research Projects Supervised:

Name of Project

Name of Project

SERVICE EXPERIENCE

Career Leader, University of Waterloo September 20XX – September 20XX

- What + How + Why
- What + How + Why

Treasurer, Mechanical Engineering Graduate Association, University of Waterloo January-December 20XX

- What + How + Why
- What + How + Why

CERTIFICATIONS

Workplace Hazardous Materials Information System , University of Waterloo	20XX
Student Leadership Program , Student Success Office, University of Waterloo	20XX
Expectations Teaching Certificate , Faculty of Engineering, University of Waterloo	20XX

TECHNICAL SKILLS

Chemical Characterization: X-Ray Photoelectron Spectroscopy and Energy Dispersive X-Ray

Optical Characterization: Photoluminescence spectroscopy, UV Visible spectroscopy, Fourier Transform IR spectroscopy

Microscopy Analysis: Transmission Electron Microscope, Scanning electron microscope, Atomic Force Microscopy, Optical Microscope

Structural Analysis: Xray Diffraction, Raman Spectroscopy

Lithography: Mask-less aligner photolithography, Wet bench

Packaging Tools: Wire bonding

Deposition: E-beam evaporator metal deposition