

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 teaching and advising experience gained through Teaching Assistant and Career Leader positions.
- Strong interdisciplinary research in two-dimensional material fabrication that can contribute to upper-year undergraduate and graduate curriculum
- Highly skilled in supervising and instructing 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.
- Proven ability to convert research into high quality publications with # patent disclosure, # refereed journal article publications, and # conference proceedings.

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

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

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

SERVICE EXPERIENCE

Career Leader, University of Waterloo	September 20XX – September 20XX
<ul style="list-style-type: none">■ What + How + Why■ What + How + Why	
Treasurer, Mechanical Engineering Graduate Association, University of Waterloo	January-December 20XX
<ul style="list-style-type: none">■ What + How + Why■ What + How + Why	

INDUSTRY EXPERIENCE

Associate Engineer , Place, Location	July 20xx
<ul style="list-style-type: none">■ 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
<ul style="list-style-type: none">■ What + How + Why■ What + How + Why	
Daihatsu Egypt, Cairo, Egypt: Intern Engineer	August 20XX
<ul style="list-style-type: none">■ What + How + Why■ What + How + Why	

PROFESSIONALIZATION

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

RESEARCH EXPERIENCE

Doctoral Research, University of Waterloo, Waterloo, ON	September 20XX-present
<ul style="list-style-type: none">• 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
<ul style="list-style-type: none">• What + how + why• 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)

PRESENTATIONS

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

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