



Research and Innovation Collaboration Agreement

This Agreement is made as of 6th (day) of January, 2023 (the “Effective Date”).

BETWEEN:

University of Windsor

(COLLABORATOR FULL LEGAL NAME & LEGAL STATUS)

401 Sunset Ave, Windsor, ON N9B 3P4

(ADDRESS)

E: Chris.Houser@uwindsor.ca

(TELEPHONE AND E-MAIL)

(hereinafter referred to as “Collaborator”)

-AND-

THE GEORGIAN OF APPLIED ARTS AND TECHNOLOGY

A College of Applied Arts and Technology established by Ontario Regulation 34/03, S.2(1)13. under *Ontario Colleges of Applied Arts and Technology Act, 2002*

(hereinafter referred to as “Georgian”)

(hereinafter referred to collectively as “the Parties”)

WHEREAS Georgian operates a Department of Research and Innovation of which purpose is to engage Georgian students in applied research projects as a part of their academic program and vocational training,

AND WHEREAS the Parties wish to enter into an agreement setting out the terms and conditions of a proposed collaborative research project, as hereinafter described,

AND WHEREAS the Parties have agreed that Georgian shall apply to the Colleges Ontario Network for Industry Innovation (CONII), Ontario Centres of Excellence (OCE), the Natural Sciences and Engineering Research Council of Canada (NSERC), or a similar government agency (“the Funder”) for funding to support a research project,

AND WHEREAS the terms set out in any jointly executed application submitted to the Funder shall be incorporated into this Agreement in Appendix A and B, and in particular, with respect to timelines, contributions and payment obligations,

NOW THEREFORE, in consideration of the mutual covenants contained herein and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

1. Definitions

As used in this Agreement,

“Agreement” means this Research and Innovation Collaboration Agreement, including the appendices.

"Appendix" means one of the following Appendices described below, which forms an integral part of this Agreement:

Appendix A, Statement of Work means the Appendix providing a description of the Research Project, including without limitation, the scope of work, resource breakdown, general responsibilities of each of the Parties, contributions, and schedule, and

Appendix B, Collaborator Responsibilities means the Appendix providing the description of the responsibilities of the Collaborator.

“Completion Date” means the date stipulated by the Funder as the date that the Research Project shall be completed or, if the Funder has not set such a date, then a completion date as stipulated by Georgian.

“Contribution” means a contribution to eligible expenses or activities including but not limited to labour, labour costs, operating costs, materials and supplies, consulting and/or professional fees coverage, travel and meeting costs, approved by the Funder and mutually agreed upon by the Parties.

“Eligible Activities” means product and process applied research, engineering design, technology development, product testing, certification, proof of concept, piloting and demonstration and problem solving, or such other activities as may be defined by the Funder.

“Eligible Expenses” means expenses approved by the Funder.

“Funder” means the Colleges Ontario Network for Industry Innovation (CONII), the Natural Sciences and Engineering Research Council of Canada (NSERC), or a similar government agency, to which the Parties have applied for funding in support of the jointly contemplated research project.

"Grant Recipient" means Georgian for the purpose of carrying out the Research Project, in accordance with the requirements stipulated in the Statement of Work, Appendix A.

“Project Start Date” means the date stipulated by the Funder as the date that the Research Project shall commence.

"Intellectual Property" means scientific formulae, data, discoveries, inventions, software, models, prototypes, specifications, patterns, drawings, algorithms, concepts, products, compositions, processes and protocols, methods, tests and improvements, industrial designs, works protected by copyright (including but not limited to text, tables, reports, documentation, artwork, graphics), trademarks, know-how, machines, devices, and computer programs and includes any and all patents, patent rights and patent applications which embody, emulate or employ any part of the foregoing.

“Participant(s)” means the person(s) appointed or designated by Georgian from time to time to perform work on the Research Project.

“Research Results” means all those findings, results and applications made, developed or conceived in the strict performance of the obligations and requirements of the Research Project by the Participant(s) or, if applicable, in conjunction with the Collaborator, and include as applicable but without limitation, all products, models, methods, processes, databases, audio-visual and computer material or equivalent circuitry, computer software arising therefrom, and shall include Intellectual Property directly attributable to the Research Project. Research Results do not include pre-existing Intellectual Property as set out in paragraph 4 herein.

2. Research Involving Humans

Research activities undertaken at Georgian that involve human participants are subject to the policies and procedures of Georgian’s Research Ethics Board. This includes all research, regardless of whether the research is funded or non-funded, is performed by Georgian students, faculty, support staff, administrative staff, or external organizations, is a collaborative research undertaking with strategic college or university partners, or is for commercial or information purposes. Such policies and procedures can be found on <http://upc.georgianc.on.ca/research/research-ethics-board/policy-and-procedures/ethics/>.

3. Acknowledgement: Student Services

Collaborator acknowledges that the activities herein contemplated are in furtherance of the vocational training of students enrolled at Georgian. Collaborator acknowledges that Research and Innovation is not a professional applied research firm and that the Research Results are not certified by an engineer and are for research purposes only.

4. Research Project Contingent on Funding

The Parties acknowledge and agree that the Research Project will commence only if the Funder approves the application submitted by the Parties and commits to funding the Research Project.

5. Acknowledgement and Limitation: Pre-Existing Intellectual Property

Each party retains ownership of any Intellectual Property or other proprietary information owned by that party prior to entering into this Agreement, including but not limited to inventions, designs, drawings, methods, techniques, processes, know-how, data and information, whether or not such Intellectual Property and/or information may be protected by statute or common law. It is acknowledged that such pre-existing intellectual property and/or information may be utilized for the conduct of the Research Project, and may or may not be required in order to practice the Research Results. No license or other right is implied or given under this Agreement, or otherwise, with respect to any such pre-existing intellectual property and/or information.

6. Research Project

Collaborator hereby agrees to engage students enrolled at and employed by Georgian under the auspices of the Georgian Department of Research and Innovation to undertake a Research Project, which may be generally described as:

GEO 1379 - Smart Beach

and as more particularly described in Appendix A. The students shall be supervised by members of the Faculty of Georgian. The hours of work will be mutually agreed by Georgian and the Collaborator.

7. Contribution Obligations

The Collaborator agrees to provide the Collaborator's Contribution as set out in Appendix B. Contributions in-kind must be for Eligible Activities. The Collaborator will be required to substantiate the dollar value of contributions in-kind.

The Collaborator, on the Effective Date, will give notice to Georgian of a contact person for the Research Project (the "**Collaborator Project Manager**"). The responsibility and authority of the Collaborator Project Manager shall be to:

- (a) provide the single point of contact for the contact person at Georgian for the Research Project (the "**Georgian Project Manager**");
- (b) participate in regular progress review meetings with appropriate Georgian representative(s); and
- (c) provide all information that Georgian may reasonably require to fulfil its obligations under this Agreement.

8. Term

This Agreement shall come into force on the Effective Date and shall terminate on the Completion Date unless terminated earlier in accordance with Section 26 (Default and Remedy) below.

9. Ownership & Rights

Collaborator shall be the owner of any Research Results arising out of the Research Project, including any intellectual property rights therein.

10. Licence

Collaborator grants Georgian an exclusive, perpetual and royalty-free licence to use the Research Results including intellectual property for research, academic and administrative purposes.

11. Public Statements and Media Releases

Collaborator will not use the name, logos, symbols or trademarks of Georgian, or the names of any member of Georgian staff or student body, in any publicity without the prior written approval of an authorized representative of Georgian.

Georgian will not use the name of Collaborator, or any employee of Collaborator, in any publicity without the prior written approval of Collaborator, except that Georgian may publish the title of the Project, the name of the Collaborator and the value of the Agreement.

Collaborator acknowledges that the Funder may publish the title of the Project, the name of the Collaborator, the value of the Agreement and other details of the Research Project.

Georgian agrees that Collaborator shall have the right to approve any proposed public presentations in respect of the Research Project and Research Results.

12. No Implied Endorsement

Georgian cannot and does not endorse the products or services of the Collaborator and no such endorsement shall be implied from this Agreement or from the contribution of Georgian made under this Agreement. There shall be no public disclosure of the Research Results of the Project by the Collaborator without prior written approval from Georgian.

13. No Representation or Warranty

Georgian will carry out the Research Project in accordance with appropriate standards but does not guarantee success in achieving any desired result. Georgian, its governors, officers, employees, students and agents make no representations or warranties and there are no conditions, either express or implied, as to any matter with respect to the Research Project including, without limitation, the existence or non-existence of competing technology, the condition, quality or freedom from error of the Research Results or any part thereof, the merchantability or fitness for any particular purpose thereof, or that the Research Results or any part or aspect thereof will be capable of receiving statutory protection. Georgian does not warrant that the use or sale of the Research Results will not infringe any patents, trademarks, or copyright. Collaborator assumes all risks of patent, trademark, or copyright infringement by reason of any such use or sale. RELIANCE ON ANY RESEARCH RESULTS IN ENTERING OTHER CONTRACTS OR BUSINESS RELATIONSHIPS IS STRICTLY AT COLLABORATOR'S OWN RISK. All other representations, warranties and conditions, express or implied, statutory or otherwise, are hereby disclaimed.

14. Collaborator Warranties

Collaborator warrants that it has the right, authority and power to enter into this Agreement.

Collaborator assumes full responsibility for the accuracy of any information provided to Georgian.

Collaborator warrants that the Research Project and contributions made thereto contemplated by this Agreement do not violate any agreement or obligation between Collaborator and any third party.

Collaborator represents and warrants to Georgian that any products, processes, apparatus, formula, information, data, elements of text, graphics, photos, designs, trademarks, artwork or other intellectual property furnished to Georgian for inclusion in the Research Results are owned by Collaborator, or that Collaborator has permission from the owner to use each of these elements, and will hold harmless, protect, and defend Georgian from any claim or suit arising from the use of such elements furnished by Collaborator.

15. Independent Legal Advice

It is the responsibility of the Collaborator to obtain any searches or legal advice necessary in respect of the legal liabilities related to and/or the legal protection of the Research Results, including but not limited to patents, trade-marks, trade-names, copyright and any searches, applications or registrations related thereto.

16. Indemnity

COLLABORATOR EXPRESSLY AGREES THAT IT WILL RELEASE, INDEMNIFY AND HOLD HARMLESS Georgian, its governors, officers, employees and students from any and all actions, causes of action, claims, demands, cost, liabilities, expenses and damages (including legal fees) arising as a result of (a) breach of this Agreement by the Collaborator, (b) the performance of the Research Project, (c) the Collaborator's use of the Research Results, including commercialization of any product or service arising therefrom and/or (d) use of the Research Results, or of any product or service related to the Research Results by any third party. This indemnity shall survive any termination or expiry of this Agreement.

17. Timelines

Georgian shall use its best efforts to establish reasonable time-lines for the delivery of Research Results. Delivery of Research Results within specified time frames is contingent on Collaborator delivering all necessary information, documentation, material and authorizations on a timely basis. Those time-lines are impacted by a number of factors, including (a) the length of a semester, and (b) a variety of circumstances that arise in an academic environment including, but not limited to, the varying nature of student academic workloads, students ceasing to be enrolled in the academic program, student suspension or expulsion, staff or student illness, work stoppages and strikes.

18. Delays Beyond Georgian's Reasonable Control

No liability shall be incurred by Georgian for delay in progress of the Research Project or for damages suffered by the Collaborator or any third party, or for non-performance of its obligations, as a result of any causes beyond the reasonable control of Georgian.

19. Collaborator's Alterations

Collaborator acknowledges that, given the limited number of weeks available within the academic semester within which the students must complete the work, it is not possible to accommodate any substantial change to the original instructions provided by the Collaborator after the work has been undertaken, and/or after Collaborator has provided approvals.

20. Confidentiality

Amendment of NDA. Whereas the Parties executed a Non-Disclosure Agreement in order to facilitate discussions and negotiations in respect of the Research Project and this Agreement, and whereas those negotiations have now concluded and the Parties wish to confirm the terms of their relationship in this Agreement, including matters related to confidentiality, non-disclosure, publication and public presentation of research results, therefore the Non-Disclosure Agreement is hereby amended by the terms of this Agreement and where they conflict, the terms in this Agreement shall prevail from hereon.

Confidentiality Information. Collaborator and Georgian may each have certain information that is non-public, confidential or proprietary in nature, both written and oral, which may include but is not limited to (i) scientific and technical information such as drawings, compositions, formulae, visual demonstrations, and other data, and may, where circumstances require or permit, include samples, prototypes and/or material and (ii) business information, such as financial, marketing, sales, operating, cost, technical and other business data (all such information is collectively referred to as "**Confidential Information**").

Period. This obligation of confidentiality shall expire two (2) years after termination of this Agreement.

Standard of Care. Georgian shall protect the Confidential Information by using the same degree of care, but not less than a reasonable degree of care, to prevent the unauthorized use, dissemination, or publication of the Confidential Information as Georgian uses to protect its own confidential information of a like nature.

Marking. Georgian's obligations shall only extend to Confidential Information that: (a) is conspicuously marked as confidential at the time of disclosure, or (b) is unmarked (*e.g.*, orally disclosed) but treated as confidential at the time of disclosure, and is designated as confidential in a written memorandum sent to Georgian's address (set forth above) within fifteen days of disclosure, summarizing the confidential information sufficiently for identification.

Exclusions. This Agreement imposes no obligation upon Georgian with respect to information that:

- (a) was in Georgian's possession before receipt from the Collaborator;
- (b) is or becomes a matter of public knowledge through no fault of Georgian;
- (c) is rightfully received by Georgian from a third party without a duty of confidentiality to the Collaborator;
- (d) is disclosed by the Collaborator to a third party without a duty of confidentiality on the third party;
- (e) is independently developed by Georgian;
- (f) is disclosed under operation of law;
- (g) is disclosed by Georgian with the Collaborator's prior written approval; or
- (h) is disclosed in order to comply with the requirements of the Funder or applicable law or governmental regulation, provided the receiving party gives prior written notice of such disclosure and takes reasonable actions to avoid such disclosure or minimize its extent.

21. Default and Remedy

Georgian may declare that an event of default has occurred if:

- (a) Collaborator has not met or satisfied a term or condition of this Agreement;
- (b) The Collaboration Project is not completed to Georgian's satisfaction by the Completion Date; or
- (c) Collaborator becomes bankrupt or insolvent, goes into receivership, or takes the benefit of any statute, from time to time in force, relating to bankrupt or insolvent debtors.

Except in the case of default under (c), Georgian will not declare that an event of default has occurred unless Georgian has given prior written notice to the Collaborator of the occurrence. The Collaborator shall, within such period of time as Georgian may specify in the notice, either correct the condition or have taken steps necessary to correct the condition to the satisfaction of Georgian.

If Georgian declares that an event of default has occurred, Georgian may immediately exercise the remedy of terminating the Agreement.

In the event of default or termination, the parties shall negotiate ownership and licensing arrangement for Research Results to the date of default. If the parties cannot reach an agreement in respect of the ownership and licensing rights, then all Research Results and research to the date of default shall be deemed to be the property of the Collaborator, subject to the license to Georgian in section 10 herein.

22. Governing Law

This Contract shall be governed by and construed in accordance with the laws of Ontario and applicable federal laws of Canada.

23. No Agency or Joint Venture

Nothing contained herein or done hereunder shall be construed as establishing any agency, or joint venture relationship between the Parties for any purpose whatsoever. If there is more than one Collaborator under this Agreement, the obligations of all of such parties are several, not joint and several.

24. Headings

All headings in this Agreement are inserted solely for convenience, are not part of this Agreement and do not in any way limit or amplify the terms hereof. Any reference to “days” in this Agreement means calendar days, unless otherwise specified.

25. Further Assurances

Each of the Parties shall sign such documentation and deliver such information as may be reasonably required by the other in order to confirm and give effect to the provisions set forth in this Agreement.

26. Assignment

No right or obligation granted or undertaken in accordance with this Agreement may be assigned by either party without the prior written consent of the other. Georgian shall not subcontract any work to be performed except as specifically set forth in this Agreement. Specifically, and without limiting the generality of the foregoing, no licences granted under the terms of this Agreement are assignable, in part or in whole, without the prior written consent of Georgian which consent may be reasonably withheld.

27. Entire Agreement

This Agreement, including any Appendices attached hereto, and together with the Non-Disclosure Agreement, constitutes the entire agreement between the Parties with respect to the subject matter hereof. This Agreement supersedes all prior agreements, negotiations, representations and proposals, whether written or oral.

28. Severability

If any term, provision, covenant or condition of this Agreement, or the application thereof to any person, place or circumstance, shall be held to be invalid, unenforceable or void, the remainder of this Agreement and such term, provision, covenant or condition as applied to other persons, places and circumstances shall remain in full force and effect.

29. Amendment

No amendment or variation of this Agreement shall be effective unless set forth in writing signed by a duly authorized representative of each party.

30. Counterparts and Facsimile Signatures

This Agreement may be executed in one or more counterparts, each of which, when so executed shall be deemed an original, and all of which together shall constitute one and the same agreement. This Agreement may be delivered by facsimile provided that the party doing so sends the original executed copy of this Agreement promptly by courier to the other party.

University of Windsor

Dr. Chris Houser
Lead Researcher



Signature:

I have the authority to bind the Collaborator.

Jun 9/23

Date:

The Georgian College of Applied Arts and Technology

Dr. Mira Ray,
Executive Director, Interim Research Innovation
and Entrepreneurship



Signature:

January 11, 2023

Date:

Appendix A. Statement of Work

*See attached proposal: (**GEO 1379**)

Appendix B. Collaborator Responsibilities

*See attached proposal: insert (**GEO 1379**)

Research and Innovation

Project Proposal for GEO 1379 – Smart Beach

Purpose

This project is part of the three-year Smart Beach project administered by the Municipal Innovation Council (MIC) and it aims to use innovative technologies to improve beach safety. This project aims to utilize the collected buoy data and the publicly available Environmental Canada and NOAA¹ data to examine if the inshore water movement (wave conditions and currents) and drowning incidents can be predicted by the offshore buoy data and weather conditions. The results of machine learning models are expected to support the Smart Beach project further to develop a real-time beach security information system for beachgoers and improve safety at Kincardine's Station Beach. This study will be conducted by a team of post-graduate students from the Big Data Analytics Program (BDAT) and Artificial Intelligence (AIDI), under the supervision of Georgian College faculty from this program.

Background

Beaches around Lake Huron are popular tourist destinations. However, there are some potential risks such as quick underwater rip currents. Local community organizations are seeking solutions to educate and maintain beach safety. MIC was a three year project launched at Station Beach in Kincardine on May 25, 2022, the research team of the Smart Beach project has collected weather and wave data using a RAEON (Real-time Aquatic Ecosystem Observation Network) buoy in Lake Huron from Spring to Autumn in 2022. The team will use the data gathered at Kincardine beach during the summer and also data that will be collected from publicly available historical data from the NOAA and Environment Canada. The dataset will be cleaned and perform both statistical analysis and EDA (Exploratory Data Analysis). After the team will performing many feature engineering techniques to prepare the dataset in creating a machine learning prediction model.

Requirements

Here are the specific questions and associated datasets that the team will be focused:

Question 1: Can we predict the inshore significant wave height, wave period, wave direction, current speed, and temperature profile using readily available weather and wave data from NDBC buoys in Lake Huron as well as weather stations managed by Environment Canada and NOAA. Part of this question is balancing the amount of data with the confidence in the prediction. Data provided: wave, temperature, and current data from the buoy. Data needed: Weather and wave data from NOAA and Environment Canada.

¹ National Oceanic Atmospheric Administration

Question 2: Using the above model, we would like to predict the wave, current and temperature conditions for past drownings and rescues at Kincardine and along the Huron shore of Bruce County. Data needed: Historical Weather and wave data from NOAA and Environment Canada.

Question 3: Predict the wave conditions and current visible in the camera images, as well as the number and distribution of people on the beach and in the water. Data provided: anonymized images from the camera. This will be provided later once the images are anonymized, with a focus on providing the model set first.

Deliverables

1. A report of overall analysis
2. The predictive model materials
3. Python program code and scripts

Timelines and Key Milestones

The comprehensive proposal will be developed in term one (**Nov to Dec 2022**) according to the schedule outlined below. Upon approval by the client and faculty supervisors, the implementation of these proposals will take place in term two (**Jan to April 2023**). The research team will deliver the final presentation at the Georgian College in Barrie in **April 2022** and the Executive Summary will be emailed the same day. The work will be completed according to the following timelines and milestones:

Milestone	Start Date*	End Date*
Requirements	11/8/2022	12/16/2022
Design	12/27/2022	2/14/2023
Development	2/14/2023	3/21/2023
Testing	3/21/2023	3/28/2021
Release	3/28/2023	4/6/2023

**Note : The above dates are specified to provide a high level view of duration – subject to change*

Collaborator responsibilities

The collaborator has the following responsibilities within the project:

- Provide dataset to Georgian College faculty and students by the first week of term two
- Communicate with students regarding projects in a timely manner. This may be in the form of in-person, email, telephone or video conference

- Attend kick-off meeting with students, review proposal and attend the final presentation (accommodations can be made if in-person is not possible, example: video conference)

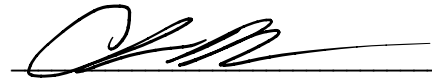
SIGNATURES

Date:

COLLABORATOR:

University of Windsor

(insert full legal name)



Per: Authorized Signing Officer

Dr. Chris Houser, Lead Researcher

Name and title of Authorized Signing Officer

THE GEORGIAN COLLEGE OF APPLIED ARTS AND TECHNOLOGY



Per: Authorized Signing Officer

Dr. Mira Ray, Executive Director, Interim Research Innovation and Entrepreneurship