

**From:** Armughan Al-Haq  
**Sent:** Fri, 21 Sep 2018 17:21:36 -0400  
**To:** Andy Oding  
**Cc:** Jessica Strickler; Laurie Larochelle  
**Subject:** RE: Panel Speaker Invitation (University of Waterloo) - Oct 31

Thank you kindly.

With much appreciation,  
Armughan

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**From:** Andy Oding [mailto:[andy@buildingknowledge.ca](mailto:andy@buildingknowledge.ca)]  
**Sent:** September 21, 2018 5:03 PM  
**To:** Armughan Al-Haq  
**Cc:** Jessica Strickler; Laurie Larochelle  
**Subject:** RE: Panel Speaker Invitation (University of Waterloo) - Oct 31

Hello Armughan

Here is slightly updated CV(attached ) and pic

"With an extensive background as a builder for 20+ years Andrew brings an insightful and real-life practicality to building science principles and their in-field applications. As a recognized building science trainer by the government of Canada-Office of Energy Efficiency, Building Science Specialist (University of Toronto), and HVAC designer, Andrew is working closely with the development of the new National Building Code of Canada : Standing Committee on Energy Efficiency in Housing and Building, the re-development of ASHRAE 90.2 SSPC Energy efficiency standard for low-rise residential buildings. 90.2 and many advanced building programs (i.e. ENERGY STAR®, Net Zero, LEED for Homes™, etc.) across North America."

**ANDREW ODING** CEA, LEED AP General Manager | Director Building Science  
**T** | 1-800-267-6830 **C** | 226-868-2769 **F** | 519-658-6103 **E** | [andy@buildingknowledge.ca](mailto:andy@buildingknowledge.ca)

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**From:** Armughan Al-Haq <[armughan.al-haq@uwaterloo.ca](mailto:armughan.al-haq@uwaterloo.ca)>  
**Sent:** September 21, 2018 1:38 PM  
**To:** Andy Oding <[andy@buildingknowledge.ca](mailto:andy@buildingknowledge.ca)>  
**Cc:** 'Gord Cooke' <[gordc@buildingknowledge.ca](mailto:gordc@buildingknowledge.ca)>; Jessica Strickler <[jessica.strickler@uwaterloo.ca](mailto:jessica.strickler@uwaterloo.ca)>; Laurie Larochelle <[laurie.larochelle@uwaterloo.ca](mailto:laurie.larochelle@uwaterloo.ca)>  
**Subject:** RE: Panel Speaker Invitation (University of Waterloo) - Oct 31

Dear Andy,

Thank you so much for accepting our invitation.

I would request your approval on the following information:

**1. A high resolution image of your headshot**

Low resolution image is attached (please provide a high resolution image)...

**2. A short biography, and**

With an extensive background as a builder for 20+ years Andrew brings an insightful and real-life practicality to building science principles and their in-field applications. As a recognized building science trainer by the government of Canada-Office of Energy Efficiency, Building Science Specialist (University of Toronto), and HVAC designer, Andrew is working closely with the development of the new [National Building Code of Canada : Standing Committee on Energy Efficiency in Housing and Building](#), the re-development of ASHRAE 90.2 SSPC Energy efficiency standard for low-rise residential buildings. 90.2 and many advanced building programs (i.e. ENERGY STAR®, Net Zero, LEED for Homes™, etc.) across North America.

**3. Title of your presentation**

N/A (please provide one...)

I have cc'd our UW team so that they are in the loop.

Jessica Strickler (Communications Specialist WISE) and I will be sharing a webpage link with you in a couple of days that can be sent (via email) to invite people. It will have the updated agenda and the registration link via Eventbrite portal.

Thank you kindly.

With much appreciation,  
Armughan

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**From:** Andy Oding [<mailto:andy@buildingknowledge.ca>]

**Sent:** September 19, 2018 4:36 PM

**To:** Armughan Al-Haq

**Cc:** 'Gord Cooke'

**Subject:** RE: Panel Speaker Invitation (University of Waterloo) - Oct 31

Hello Armughan

I would be pleased to attend.

Please send along more information when ready. Do you need a CV?

**ANDREW ODING** CEA, LEED AP General Manager | Director Building Science

**T** | 1-800-267-6830

**C** | 226-868-2769

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**From:** Armughan Al-Haq <[armughan.al-haq@uwaterloo.ca](mailto:armughan.al-haq@uwaterloo.ca)>  
**Sent:** September 17, 2018 10:03 AM  
**To:** Andy Oding <[andy@buildingknowledge.ca](mailto:andy@buildingknowledge.ca)>  
**Cc:** Gord Cooke <[gordc@buildingknowledge.ca](mailto:gordc@buildingknowledge.ca)>  
**Subject:** RE: Panel Speaker Invitation (University of Waterloo) - Oct 31

Dear Andy,

Good Morning...I hope you had an enjoyable weekend.

Gord wouldn't be able to participate due to prior commitments.

I would request you to please participate as a distinguished panel speaker on behalf of Building Knowledge Canada at the Symposium on "Innovation in Building Science: Transition to Low Carbon Energy Buildings" on Wednesday, **Oct 31, 2018** at the Federation Hall of University of Waterloo for **Panel 3 – Technologies for a Low-Carbon Future**.

The three panels for the symposium are as follows:

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**Panel 1 – The Business of Future Low-Carbon Buildings**

Policy makers have made it clear that both new and existing buildings will need to use much less energy and energy with a much lower carbon content in the future.

Our panel of industry leaders will discuss the opportunities and the obstacles to building the next generation of buildings, residential, commercial, and institutional. The discussion will also provide insight into what kind of product will be needed, the role of regulation, technology, workforce, and markets. The renovation and conversion of existing buildings will also be raised.

**Panel 2 – Innovation in Achieving Low-Carbon Buildings**

Our panel of building scientists and builders will provide insights into the challenges of implementing new technologies to meet more demanding codes and targets. The discussion will focus on design engineering, construction practices, building codes, regulations, and related standards.

The increasing challenge of quality, speed of construction, sophisticated mechanical systems, and ever more complex codes and standards will be considered, both for new greenfield sites, increasingly common tight urban sites, and existing building conversions and retrofits.

**Panel 3 – Technologies for a Low-Carbon Future**

Whether new or existing, the buildings of the future will need to use a different mix of products to make buildings work, save energy, reduce carbon, and be easier and faster to build.

Our panel of engineers and business developers will talk about developing, implementing, and marketing products that can help save energy and reduce carbon emissions. The role of embodied

carbon versus operational carbon, the challenge of convincing designers and builders to place life-cycle cost above initial costs.

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I would really appreciate your time and participation.

Thank you kindly.

Warm Regards,  
Armughan

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**From:** Gord Cooke [<mailto:gordc@buildingknowledge.ca>]  
**Sent:** Thursday, September 13, 2018 8:58 PM  
**To:** Armughan Al-Haq <[armughan.al-haq@uwaterloo.ca](mailto:armughan.al-haq@uwaterloo.ca)>  
**Subject:** RE: Panel Speaker Invitation (University of Waterloo) - Oct 31

Armughan,  
I confirmed that the booking I have with another client on Oct.31<sup>st</sup> is still on.  
Thus, unfortunately I will not be able to participate in your symposium.  
I do appreciate you contacting me and perhaps there will be another opportunity at a later date.

Sincerely,

Gord Cooke

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**From:** Armughan Al-Haq <[armughan.al-haq@uwaterloo.ca](mailto:armughan.al-haq@uwaterloo.ca)>  
**Sent:** Wednesday, September 12, 2018 5:03 PM  
**To:** 'gordc@buildingknowledge.ca' <[gordc@buildingknowledge.ca](mailto:gordc@buildingknowledge.ca)>  
**Cc:** 'Andy Oding' <[andy@buildingknowledge.ca](mailto:andy@buildingknowledge.ca)>; 'Mehmet Ferdiner' <[mehmet@buildingknowledge.ca](mailto:mehmet@buildingknowledge.ca)>; Kyle Anders <[kyle@buildingknowledge.ca](mailto:kyle@buildingknowledge.ca)>; John Straube <[jfstraube@uwaterloo.ca](mailto:jfstraube@uwaterloo.ca)>  
**Subject:** Panel Speaker Invitation (University of Waterloo) - Oct 31

Dear Gord,

Good Afternoon,

My name is Armughan Al-Haq. I work with the [Waterloo Institute for Sustainable Energy \(WISE\)](#) at the [University of Waterloo \(UW\)](#) as the Manager of Program Development, Partnerships and Finance.

We will be hosting our Symposium on “Innovation in Building Science: Transition to Low Carbon Energy Buildings” on Wednesday, **Oct 31, 2018** at the Federation Hall of University of Waterloo.

I am pleased to invite you as a distinguished panel speaker to kindly participate in **Panel 3 – Technologies for a Low-Carbon Future**.

The three panels for the symposium are as follows:

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**Panel 1 – The Business of Future Low-Carbon Buildings**

Policy makers have made it clear that both new and existing buildings will need to use much less energy and energy with a much lower carbon content in the future.

Our panel of industry leaders will discuss the opportunities and the obstacles to building the next generation of buildings, residential, commercial, and institutional. The discussion will also provide insight into what kind of product will be needed, the role of regulation, technology, workforce, and markets. The renovation and conversion of existing buildings will also be raised.

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The increasing challenge of quality, speed of construction, sophisticated mechanical systems, and ever more complex codes and standards will be considered, both for new greenfield sites, increasingly common tight urban sites, and existing building conversions and retrofits.

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Our panel of engineers and business developers will talk about developing, implementing, and marketing products that can help save energy and reduce carbon emissions. The role of embodied carbon versus operational carbon, the challenge of convincing designers and builders to place life-cycle cost above initial costs.

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A short description of the symposium is attached for your reference.

I have cc'd [Dr. John Straube](#) (Associate Professor, Civil & Environmental Engineering and Architectural Engineering at UW) so that he is in the loop.

Thank you for your time, and I look forward to hearing from you.

Kind Regards,

Armughan Al-Haq  
Manager, Program Development, Partnerships and Finance  
Waterloo Institute for Sustainable Energy, University of Waterloo  
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