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Protected when completed

Dr. Naomi Keena

Correspondence language: English
Sex: Female
Date of Birth: 8/01
Canadian Residency Status: Work Permit
Applied for Permanent Residency?: No
Country of Citizenship: Ireland

Contact Information

The primary information is denoted by (*)

Address

Primary Affiliation (*)

School of Architecture
815 Sherbrooke St W
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Website

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Dr. Naomi Keena

Language Skills

Language	Read	Write	Speak	Understand	Peer Review
English	Yes	Yes	Yes	Yes	Yes

Degrees

2014/8 - 2017/12
Doctorate, Doctor of Philosophy, Architectural Sciences, Rensselaer Polytechnic Institute
Degree Status: Completed

2013/9 - 2014/5
Master's non-Thesis, Masters of Architecture II (Post-Professional), Architectural Sciences, Rensselaer Polytechnic Institute
Degree Status: Completed

2008/8 - 2010/1
Master's Thesis, Master of Science in Architecture, Architecture, The Pratt Institute
Degree Status: Completed

2003/9 - 2005/5
Bachelor's Honours, Bachelors in Architecture, Architecture, University College, Dublin
Degree Status: Completed

1999/9 - 2002/5
Bachelor's, Bachelors in Architectural Science, Architecture, University College, Dublin
Degree Status: Completed

Credentials

2019/8
An Introduction to Evidence-Based Undergraduate STEM Teaching, Center for the Integration of Research Teaching and Learning (CIRTL)

Recognitions

2019/10
The American Architecture Award from the Chicago Atheneum - Ecological Living Module (ELM), UN Plaza, NY (Team: Gray Organschi Architects, Yale CEA, Yale University, UN Environment).
The Chicago Atheneum
Prize / Award
The Ecological Living Module (ELM) was a demonstration housing project showcased at the UN Plaza, New York in 2018 as part of the UN High Level Political Forum. The research design team was a collaboration between Gray Organschi Architects, Yale CEA,Yale University, UN Environment. The house showcased sustainable housing design with the integration of technologies for clean energy, water, air and urban-farming and the use of bio-based materials.

2018/12	Residential Architect Design Awards - Ecological Living Module (ELM), UN Plaza, NY (Team: Gray Organschi Architects, Yale CEA, Yale University, UN Environment). Architect Magazine (Journal of AIA) Prize / Award The Ecological Living Module (ELM) was a demonstration housing project showcased at the UN Plaza, New York in 2018 as part of the UN High Level Political Forum. The research design team was a collaboration between Gray Organschi Architects, Yale CEA,Yale University, UN Environment. The house showcased sustainable housing design with the integration of technologies for clean energy, water, air and urban-farming and the use of bio-based materials.
2018/1	International Society for the Advancement of Emergy Research (ISAER) Travel Award International Society for the Advancement of Emergy Research Prize / Award Travel award to present paper at conference.
2016/1	Metals in Construction Design Competition: Re-imagine a New York City Icon - Winning Proposal (Team: Keena, Brainard, Aly, Matalucci, Andow and Martinson) - 2,500 (United States dollar) Ornamental Metal Institute of New York Prize / Award An architectural design competition named 'Metals in Construction Design Competition: Re-imagine a New York City Icon'. Our entry studied the environmental impacts of different retrofit design options for the landmark Met-life Building in NYC. We used ecological analysis methods to carry out the environmental accounting. Our team was one of the winning proposals. Team: Keena, Brainard, Aly, Matalucci, Andow and Martinson
2010/5	Pratt Institute Outstanding Merit Award for Master's thesis The Pratt Institute Distinction Award for graduate thesis.
2008/8 - 2010/5	Fulbright Scholar - 7,500 (Euro) Fulbright Commission Ireland Distinction
2008/7	The Arts Council of Ireland Travel and Training Award - 2,600 (Euro) The Arts Council of Ireland Prize / Award
2005/5	First Class Honours University College, Dublin Distinction

User Profile

Researcher Status: Researcher

Fields of Application: Environment, Land Management

Disciplines Trained In: Architecture and Design

Areas of Research: Architectural Conception, Environmental Design, Environment Dynamics, Social and Cultural Factors of Environmental Protection, Sustainable Development

Research Specialization Keywords: architecture, built and urban ecologies, circular economy - circular built environments, data visualization, environmental design, life cycle thinking and analysis, socio-ecological design, sustainable development, visual analytics

Research Disciplines: Architecture and Design, Urban Studies

Employment

2021/1

Assistant Professor
Engineering, Architecture, McGill University
Full-time, Assistant Professor
Tenure Status: Tenure Track
- Teaching now and future will include, undergraduate level studio and a core undergraduate course 'Energy, Environment and Buildings 1' as well as graduate level seminars. - Recent grant writing involves applying my research at the nexus of sustainable built environments and data visualization to explore the re-use of construction, renovation, and demolition (CRD) waste in Montréal; exploring the environmental impacts of ‘design for disassembly’ circular practices in the built environment; and exploring the housing supply challenge in Canada through a data driven approach which develops a housing passport to track circular economy characteristics of Canada’s housing stock. - Planning the set up of my future lab which will involve a knowledge platform at McGill in the form of an immersive data visualization lab where I will train and mentor a number of undergraduate, graduate and doctoral researchers.

2018/2 - 2020/12

Lecturer
Architecture, Architecture, Yale University
Full-time, Lecturer
Tenure Status: Non Tenure Track
- Employ STEM pedagogical approaches to introduce the fundamental principles of energetics and material construction ecologies - Guide graduate students in applying this new knowledge to their studio designs through first principles and systems thinking

2018/2 - 2020/12

Post-doctoral researcher at Yale Center for Ecosystems in Architecture - co-hosted by Yale School of Architecture and Yale School of the Environment
Architecture and Environment, Yale Center for Ecosystems in Architecture, Yale University
Full-time
Tenure Status: Non Tenure Track
- Led a team of interdisciplinary researchers including graduate students who are directly involved in research and development of new *data to knowledge* frameworks which visualize and physically spatialize multi-scalar, socio-ecological data. Lead designer, co-founder and implementer of the Socio-Ecological Visual Analytics (SEVA) technology, which is used in multiple Sustainable Development domains including: the United Nations World Environment Situation Rooms, the Sustainability Committee of Yale School of Architecture, and the Bill and Melinda Gates Foundation HBGDki - Led a study with the outcome of three research papers, supported by the ENEL Foundation, on the life cycle impacts of transformative energy systems and potential links to local energy distribution networks. - Partner of the UN Sustainable Buildings and Construction Programme (SBC) which aims at improving the knowledge of sustainable construction and to support mainstream sustainable building solutions.

2014/8 - 2017/12	Research Assistant Architecture, Center for Architecture, Science and Ecology, Rensselaer Polytechnic Institute Full-time Tenure Status: Non Tenure Track - designed and co-founded a novel data visual analytics platform named Socio-Ecological Visual Analytics (SEVA) for interdisciplinary research and big team science - directed the development of SEVA as part of a large interdisciplinary effort named “Data Journey” (DJ) which received three grant awards from the Bill and Melinda Gates Foundation’s *Healthy Birth Growth and Development Knowledge Integration* (HBGDki) initiative and was showcased at the international Grand Challenges meetings in New Delhi, London, and Washington D.C. - designed and co-founded Clark’s Crow a new design plugin for socio-ecological analysis in the early stages of design – it is based on an ecological modeling analysis method named Emergy. - Conducted socio-ecological analysis on many CASE building systems including the Active Modular Phytoremediation System (AMPS) and the Integrated Concentrating Solar Façade System (ICSF)
2011/9 - 2013/6	Instructor and Design Studio Tutor - Undergraduate and Graduate levels Architecture, Architecture, University of Sheffield Full-time, Lecturer Tenure Status: Non Tenure Track **Advanced Computer Aided Architectural Design** - Graduate level, exploring the digitalization of architecture critically and creatively. **Computer Aided Architectural Design** - Designed a hybrid of lectures and workshops to demonstrate a range of CAAD, digital visualization, parametric design, and fabrication techniques **Architectural Design Studio** - Undergraduate studio -desk crits and design reviews, - Coordinated vertical learning with undergraduate and PhD students, research scientists and member of industry focusing on 3D printing advances - Taught circular economy methods including the re-use of waste construction materials into new built structures forming the public exhibit Matter Reality **Communications and Visualization** - Undergraduate course, explored tools and digital processes incl. visualization techniques **Introduction to Digital and Computational Design** - Introduction course into 2D and 3D digital computational drawings techniques, undergraduate level
2010/1 - 2011/5	Architectural Designer and Project Manager Medical and HealthCare Architecture, Bernstein and Associates Architects
2006/3 - 2008/4	Architectural Designer Residential Architecture, ODOS Architects
2005/6 - 2006/1	Architectural Consultant Urban regeneration, Grafton Architects

Affiliations

The primary affiliation is denoted by (*)

(*) 2021/1	Assistant Professor in Architecture, Architecture, McGill University
2018/2	Affiliation as a research collaborator with the Yale Center for Ecosystems in Architecture, Architecture, Yale University

Research Funding History

Awarded [n=5]

2021/7 - 2026/7 Co-investigator	Quebec circular economy research network (RQREC) - Optimisation de la planification, Grant

Clinical Research Project?: No

Principal Applicant : Marc Journeault

2021/4 - 2024/3
Principal Applicant

Circular Economy Design towards Zero Waste: Laying the foundation for constructive stakeholder engagement on improving construction, renovation and demolition (CRD) waste management, Grant

Funding Sources:

2021/4 - 2024/3 Fonds de recherche du Québec - Société et culture (FRQSC)
Research Support for New Academics (NP)
Total Funding - 45,000 (Canadian dollar)
Portion of Funding Received - 45,000
Funding Competitive?: Yes

2021/1 - 2024/1
Principal Applicant

Start-up grant from McGill University, School of Architecture, Grant, Operating

Funding Sources:

2021/1 - 2023/12 McGill University
Start-up funds
Total Funding - 40,000 (Canadian dollar)
Portion of Funding Received - 40,000
Funding Competitive?: Yes

2021/3 - 2021/9
Principal Applicant

Data Homebase: A prototype visualizing Canada’s housing characteristics to foster a circular economy, Contract

Funding Sources:

2021/3 - 2021/11 Canada Mortgage and Housing Corporation (CMHC)
Housing Supply Challenge Data Driven round
Total Funding - 200,000 (Canadian dollar)
Portion of Funding Received - 200,000
Funding Competitive?: Yes

Co-applicant : Friedman,Avi; Jemtrud,Michael;

Collaborator : Aly Etman,Mohamed; Bousquet,Samuel; Côté,Benoit; Doyon,Nathalie; Dyson,Anna; James,Marshall; Pinheiro,Paulo

2014/8 - 2017/12
Principal Applicant

PhD Scholarship - this includes full tuition support and stipend for the duration of my PhD studies. It also included a stipend award during the summers to continue my position as Research Assistant., Scholarship

Funding Sources:

2014/8 - 2017/12 Rensselaer Polytechnic Institute (Troy, NY)
Total Funding - 98,300 (United States dollar)
Portion of Funding Received - 98,300
Funding Competitive?: Yes

Completed [n=1]

2015/5 - 2018/4
Collaborator

Health Birth Growth and Development Knowledge Integration: Semantic and Data Visual Analytics Support, Grant

Funding Sources:

2015/5 - 2018/2 Bill and Melinda Gates Foundation
Healthy Birth Growth and Development knowledge integration (HBGDki)
Total Funding - 1,357,301 (United States dollar)
Portion of Funding Received - 90,000
Funding Competitive?: Yes

Co-applicant : McCusker, Jim; Pinheiro, Paulo;

Co-investigator : McGuinness, Deborah;

Collaborator : Aly Etman, Mohamed; Bennett, Kristin; Chastain, Katie; Draper, Josh; Erickson, John; Isaacson, David;

Principal Investigator : Dyson, Anna

Declined [n=4]

Co-investigator — Reducing Burnout in Management of Agitation Through User-Centered Improvements in the Emergency Department Physical Environment, Grant

Funding Sources:

2020/7 - 2021/6 Emergency Medicine Foundation (EMF) (USA)
Total Funding - 40,000 (United States dollar)

Co-investigator : Auerbach, Marc; Burleson, Winslow; de Oliveira Almeida, Gustavo; Dyson, Anna; Evans, Leigh; Joseph, Melissa;

Principal Investigator : Ray, Jessica; Wong, Ambrose

Collaborator — Design and Innovation for Resuscitation Emergencies (DIRE) - An interdisciplinary proposal where we at Yale CEA were collaborating with environmental design strategies, Grant

Funding Sources:

2019/1 - 2022/12 National Institutes of Health (NIH) (USA)
Patient Safety Learning Laboratories:Research Demonstration and Disseminations Projects
Total Funding - 2,497,495 (United States dollar)

Co-investigator : Auerbach, Marc; Dyson, Anna; Ray, Jessica; Wong, Ambrose;

Principal Investigator : Evans, Leigh

Collaborator — Life Cycle Assessment of Cities Sponsored Organization: Luxembourg Institute of Science and Technology; Marvuglia, A. (PI); 94 participants in total from 35 different COST Countries, plus USA and Canada, Grant

Funding Sources:

2020/4 - 2020/4 European Cooperation in Science and Technology (COST)
Total Funding - 500,000 (Euro)

Principal Investigator : Marvuglia, Antonino

2021/6 - 2022/6
Principal Applicant — Design for Disassembly: Establishing best practices towards circularity in the built environment to support sustainable evidence-based policymaking, Grant

Funding Sources:

2021/6 - 2022/6 McGill University
MSSI Innovation Fund
Total Funding - 29,985 (Canadian dollar)
Portion of Funding Received - 29,985
Funding Competitive?: Yes

Under Review [n=1]

2021/9 - 2026/9
Co-applicant
ReCONstruct: Building Energy Retrofit Solutions for Canada/ReCONstruire: Solutions de rénovation énergétique des bâtiments pour le Canada, Grant
Clinical Research Project?: No

Principal Applicant : Jemtrud,Michael

Student/Postdoctoral Supervision

Master's Thesis [n=1]

2020/5 - 2021/6
Co-Supervisor
Ahouanvoegbe,Pascal Jules S. (In Progress) , University of Ibadan, Nigeria
Student Degree Start Date: 2019/6
Student Degree Expected Date: 2021/6
Thesis/Project Title: *Urban Metabolism of Cotonou city: case study of Biodiversity flow.* I am supervising Pascal through the International Support Network for African Development (ISNAD Africa) Mentoring for Research Programme (MRP). Pascal attends the University of Ibadan, Nigeria.
Present Position: Graduate student

Doctorate [n=2]

2021/9
Principal Supervisor
Daniel Ricardo Rondinel Oviedo (In Progress) , McGill University
Student Degree Start Date: 2021/9
Student Canadian Residency Status: Study Permit
Thesis/Project Title: 2050 low entropy cities: An urban metabolism study from a thermodynamic perspective

2021/3
Co-Supervisor
Quratulain Asghar (In Progress) , University of Engineering and Technology Lahore
Student Degree Start Date: 2019/1
Student Degree Expected Date: 2023/2
Thesis/Project Title: Analyzing studio heterotopia in transitioning Architectural Pedagogy:Technology, Cognitive Processes and Studio Framework. I am the external co-supervisor. Quratulain is studying at the University of Engineering and Technology, Lahore.

Journal Review Activities

2019/4
Journal Reviewer,Renewable & Sustainable Energy Reviews,Elsevier
Number of Works Reviewed / Refereed: 9

Conference Review Activities

2020/12 - 2020/12 Reviewer, 2021 Curriculum for Climate Agency: Design (in)Action, Blind, ACSA/EAAE Teachers Conference
Number of Works Reviewed / Refereed: 5

2019/1 - 2019/2 Track Chair and Reviewer, 2019 IEEE Games, Entertainment and Media (GEM) Conference, Blind, Yale University
Number of Works Reviewed / Refereed: 15

Committee Memberships

2020/7 Committee Member, Multi-stakeholder advisory committee (MAC) of Sustainable Buildings and Construction, UN One Planet Network Sustainable Buildings and Construction Programme
The goal of the UN's One Planet Network Sustainable Buildings and Construction Programme is to promote resource efficiency, mitigation and adaptation efforts, and the shift to SCP patterns in the buildings and construction sector.

Presentations

1. (2021). New enterprises for integrating architectural material life cycle phases. 2021 ACSA/EAAE Teachers Conference | Curriculum for Climate Agency: Design (in)Action - Online Conference, New York, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No, Competitive?: No
Description / Contribution Value: I was invited to present and participate in a panel titled:"21st Century Frameworks for Architectural Materials". The Association of Collegiate Schools of Architecture (ACSA) and the European Association for Architectural Education (EAAE) is a biannual joint Teachers Conference dedicated to Curriculum for Climate Agency: Design (in)Action. Panel Moderator: Mae-Ling Lokko, RPI Other Panelists and Presenters: Jeana Ripple, University of Virginia Alexandra Rempel, University of Oregon Lola Ben Alan, Columbia University
2. Event organized by UN One Planet Network Sustainable Building and Construction Programme. (2020). Circular Built Environment Supporting Innovations in Cities. UN Habitat 10th World Urban Forum, Abu Dhabi, United Arab Emirates
Invited?: Yes, Keynote?: No
3. (2020). State of Play for Circular Built Environment in North America, Europe, and Middle East: Key findings from three regional reports on circularity in the built environment. World Circular Economic Forum Online Side Event organized by UN One Planet Network SBC, Canada
Main Audience: Decision Maker
Invited?: Yes, Keynote?: No
4. Event organized by UN Environment Programme (UNEP). (2020). Designing Cooler Cities – Keep Cool Naturally (Panelist). UN Habitat 10th World Urban Forum, Abu Dhabi, United Arab Emirates
Invited?: Yes, Keynote?: No
5. (2020). Built Environment Ecosystem Unit Framework towards Sustainable Urban Housing. Beyond 2020, World Sustainable Built Environment (WBSE) Conference, Gothenburg, Sweden
Invited?: No, Keynote?: No

6. (2020). Socio-Ecological Visual Analytics (SEVA): Data, Design and Knowledge, (Panelist). Yale School of Management (SOM), Economic Development Symposium, Data and the Environment, New Haven, United States
   Invited?: Yes, Keynote?: No

7. (2020). Mapping the Built Environment Process (BEP) Ecosystem via a Data to Knowledge Framework. 2020 AIA/ACSA Intersections Research Conference: Carbon. Pennsylvania State University, virtual conference, United States
   Invited?: No, Keynote?: No

8. (2019). What can be brought from Europe to the Global South and what can Europe learn from other continents (Panelist). United Nations Sustainable Built Environment Knowledge Sharing Workshop, Amsterdam, Netherlands
   Invited?: Yes, Keynote?: No

9. (2018). Data Socio-Ecological Visual Analytics (Speaker and Panelist). Transforming the DNA of the Built Environment, Spring Meeting of Yale CEA Yale University, New Lab, Brooklyn, NY, New York, United States
   Invited?: Yes, Keynote?: No

10. (2018). The benefit of integrating emergy synthesis and LCA towards more comprehensive analysis of advanced building systems.10th Biennial Emergy Conference University of Florida, Center for Environmental Policy, Gainesville, FL, Gainesville, United States
    Main Audience: Researcher
    Invited?: No, Keynote?: No

11. (2018). Case study: Real-time Collection and Visualization of Data from the Ecological Living Module – an eco-house which tackles climate change migration - through a web-based-platform named SEVA.Bloomberg Data for Good Exchange, New York, United States
    Invited?: Yes, Keynote?: No

12. (2018). Design of Ecological Living Module for the East Africa Region. UN Habitat and UN Environment Expert Group Meeting (EGM), Nairobi, Kenya
    Invited?: Yes, Keynote?: No

13. (2017). Interactive Visualization for Interdisciplinary Research. Water + Energy + Design: Innovations for Healthy, Vibrant Communities Symposium, Syracuse Center of Excellence Symposium, Syracuse, NY, Syracuse, United States
    Invited?: Yes, Keynote?: No

14. (2017). Visualization with the Data Journey Platform. Grand Challenges Annual Meeting, Washington DC, Washington DC, United States
    Invited?: Yes, Keynote?: No

15. (2017). Data Journey: The foundation of the HBGD knowledge integration environment. Visual Data Science meeting for the HBGDki initiative, Bill and Melinda Gates Foundation, Seattle, WA, Seattle, United States
    Invited?: Yes, Keynote?: No

16. (2016). Loops and Arrows - Panel I. Closed Worlds: Encounters That Never Happened. Storefront for Art & Architecture & The Irwin S. Chanin School of Architecture, The Cooper Union, New York, United States
    Invited?: Yes, Keynote?: No

17. (2016). Metals in Construction award winning entry. Professional Development Series, Heintges Architects, New York, NY, New York, United States
    Invited?: Yes, Keynote?: No

18. (2016). Interactive Visualization for Interdisciplinary Research.Electronic Imaging Conference, Society for Imaging Science and Technology, San Francisco, United States
    Invited?: No, Keynote?: No

19. (2016). Data, Digital Ecosystem. Workshop and Convening for the HBGDki initiative, Bill and Melinda Gates Foundation, Seattle, United States
Invited?: Yes, Keynote?: No

20. (2016). Towards a Visualization Framework to Evaluate the Emergy of Built Ecologies. 9th Biennial Emergy Conference, University of Florida, Center for Environmental Policy, Gainesville, United States
Invited?: No, Keynote?: No

21. (2016). Designing Built Ecologies: Investigating the Potential of Emergy Analysis.32nd Passive & Low Energy Architecture (PLEA) Conference on Cities, Buildings, People: Towards Regenerative Environments, LA, United States
Invited?: No, Keynote?: No

22. Poster Presentation and Live Demonstration. (2015). Conceptual Cluster: Understanding Complex Relationships. IEEE Symposium on Visualization in Data Science (VDS), Chicago, United States
Invited?: No, Keynote?: No

Publications

Journal Articles

1. Raugei, M; Keena, N; Novelli, N; Aly Etman, M; Dyson, A. (2021). Life cycle assessment of an ecological living module equipped with conventional rooftop or integrated concentrating photovoltaics. Journal of Industrial Ecology. : 1-15.
http://dx.doi.org/10.1111/jiec.13129
Published,
Refereed?: Yes

2. Keena, N; Dyson, A. (2019). Canaries in the Coal Mine: Bio-Responders in the ER. Paprika, Yale University. : 4-11.
Published,
Refereed?: No

3. Keena, N; Raugei, M; Aly Etman, M; Ruan, D; Dyson, A. (2018). Clark's Crow: a design plugin to support emergy analysis decision making towards sustainable urban ecologies.Ecological Modelling. 367: 42-57.
Published,
Refereed?: Yes

4. Keena, N. (2018). Positive Concentrations of Energy Towards Healthy Living Environments. Paprika. Yale University.
Published,
Refereed?: No

5. Keena, N; Aly Etman, M; Draper, J; Pinheiro, P; Dyson, A. (2016). Interactive Visualization for Interdisciplinary Research. Electronic Imaging. 1: 1-7.
Published,
Refereed?: Yes

Book Chapters

1. Keena, N; Dyson, A. (2017). Qualifying the Quantitative in the Construction of Built Ecologies. Benjamin, D. Embodied Energy and Design. : 196-205.
Published, New York: Columbia University GSAPP Lars Muller,
Refereed?: Yes

Reports

1. Keena, N; Duwyn, J; Nass, N; Dyson, A. (2021). Biomaterials to Support the Transition to a Circular Built Environment in the Global South (in press). 52. United Nations Environment Programme.
2. Keena, N; Napoli, C; Novelli, N; Aly Etman, M; Dyson, A. (2020). Investigation and design of a sustainable housing proposal which integrates a smart, renewable energy exchanging environment in Kibera, Nairobi, Kenya. 22. ENEL Foundation.
3. Keena, N; Napoli, C; Dyson, A. (2020). Built Environment Ecosystem Framework across Multiple Climatic and Cultural Contexts towards Sustainable Urban Housing. 22. ENEL Foundation.
4. Keena, N; Dyson, A. (2020). State of play for circular built environment in North America.54. Yale CEA, Yale University and One Planet Network Sustainable Buildings and Construction Programme.

Conference Publications

1. Dyson, A*; Keena, N*; Organschi, A; Gray, L; Novelli, N; Bradford, K; Aly-Etman, M; Gindlesparger, M; Wildman, H; Duwyn, J; Otto, M; Loran, S; Beltrandi, C; Radka, M; *denotes co-first authorship and equal contribution. (2020). Built Environment Ecosystem Unit Framework towards Sustainable Urban Housing. IOP Conference Series: Earth and Environmental Science. Beyond 2020, World Sustainable Built Environment (WSBE), Gothenburg, Sweden,
   Paper
   Published
   Refereed?: Yes, Invited?: No
2. Aly Etman, M; Keena, N; Dyson, A. (2020). Socio-Ecological Visual Analytics Environment “SEVA”: A novel visual analytics environment for interdisciplinary decision-making linking human biometrics and environmental data. IOP Conference Series: Earth and Environmental Science. Beyond 2020, World Sustainable Built Environment (WSBE), Gothenburg, Sweden (032062),
   Paper
   Published
   Refereed?: Yes, Invited?: No
3. Keena, N; Aly Etman, M; Dyson, A. (2020). Mapping the Built Environment Process (BEP) Ecosystem via a Data to Knowledge Framework. 2020 AIA/ACSA Intersections Research Conference: Carbon. Pennsylvania State University, virtual conference, United States,
   Paper
   Published
   Refereed?: Yes, Invited?: No
4. Keena, N; Raugei, M; Dyson, A. (2018). The benefit of integrating emergy synthesis and LCA towards more comprehensive analysis of advanced building systems. 10th biennial emergy conference. Center for Environmental Policy, University of Florida, Gainesville, United States,
   Paper
   Published
   Refereed?: Yes, Invited?: No
5. Dyson, A; Keena, N; Aly Etman, M; McCusker, J; et al. (2017). Data Journey (DJ): Data Visualization Framework. Grand Challenges Meeting, Washington D.C., United States,
   Poster
   Published
   Refereed?: No, Invited?: Yes

6. Aly Etman, M; Keena, N; Dyson, A. (2017). A New Parametric Framework: Developing Design Options in Real Time. Edinburgh: 33rd International Conference on Passive and Low Energy Architecture (PLEA). Design to Thrive, ,
   Paper
   Published
   Refereed?: Yes, Invited?: No

7. Aly Etman, M; Keena, N; Diniz, N; Rempel, A; Dyson, A. (2016). New Parametric Framework Motivating Environmentally Conscious Design. 32nd International Conference on Passive and Low Energy Architecture (PLEA). Cities, Buildings, People: Towards Regenerative Environments, Los Angeles, United States,
   Paper
   Published
   Refereed?: Yes, Invited?: No

8. Keena, N; Aly Etman, M; Rempel, A; Dyson, A. (2016). Designing Built Ecologies: Investigating the Potential of Emergy Analysis to inform the decision making process within Architectural Systems Design. 32nd International Conference on Passive and Low Energy Architecture (PLEA). Cities, Buildings, People: Towards Regenerative Environments, Los Angeles, United States,
   Paper
   Published
   Refereed?: Yes, Invited?: No

9. Keena, N; Aly Etman, M; Diniz, N; Rempel, A; Dyson, A. (2016). Towards a Visualization Framework to Evaluate the Emergy of Built Ecologies. 9th Biennial Emergy Conference University of Florida, Center for Environmental Policy, Gainesville, United States (127-142),
   Conference Date: 2016/1
   Paper
   Published
   Refereed?: Yes, Invited?: No

10. Keena, N; Aly Etman, M; Dyson, A. (2015). Interactive Visualization for Interdisciplinary Research. Symposium on Visualization in Data Science (VDS), IEEE VIS, Chicago, United States,
    Poster
    Published
    Refereed?: Yes, Invited?: No