

**CURRICULUM VITAE
STEPHEN MEDER**

September 2017

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OUTLINE OF CV

- 1.0- EDUCATIONAL EXPERIENCE
- 2.0- TEACHING
- 3.0- RESEARCH
- 4.0- PUBLICATIONS
- 5.0- SERVICE TO THE COMMUNITY
- 6.0- SERVICE TO UNIVERSITY OF HAWAII
- 7.0- PROFESSIONAL EXPERIENCE
- 8.0- AWARDS

UNIVERSITY OF HAWAII JOINT APPOINTMENT:

- University of Hawaii School of Architecture
Associate Professor
Director, Environmental Systems Laboratory
- University of Hawaii Sea Grant College Program
Director, Center for Smart Building and Community Design
- Leadership in Energy and Environmental Design (LEED) Accredited Professional

1.0- EDUCATIONAL EXPERIENCE

Arch. D – Architecture Doctorate	University of Hawaii, Manoa
M. Arch - Master of Architecture	University of Hawaii, Manoa
B.F.A – Bachelor of Fine Art	University of Hawaii, Manoa

2.0- TEACHING

Full time faculty at the University of Hawaii School of Architecture since 2000. Focus of teaching is in the areas of environmental design, mechanical systems, energy conservation and renewable energy applications especially as integrated with architecture. Below is an abbreviated class listing.

- Introduction to the Built Environment
- Sustainable Systems
- Design Studios
- Environmental Research and Design Seminars
- Mechanical Systems
- Lighting, Illumination and Power
- Hydraulic Systems
- Graduate Thesis Advising

2.1 Class List

Spring 1998	ARCH 692	Special Research Topics
Fall 1999	ARCH 214	Mechanical Systems
Fall 2000	ARCH 214	Mechanical Systems
Fall 2000	ARCH 672	Graduate Design Studio
Fall 2000	ARCH 213	Lighting, Illumination and Power
Fall 2000	ARCH 302	Advanced Architectural Design
Spring 2001	ARCH 214	Mechanical Systems
Spring 2001	ARCH 672	Graduate Design Studio
Spring 2001	ARCH 213	Lighting, Illumination and Power
Spring 2001	ARCH 302	Advanced Architectural Design
Fall 2001	ARCH 214	Mechanical Systems
Fall 2001	ARCH 313	Hydraulic Systems
Fall 2001	ARCH 213	Lighting, Illumination and Power
Fall 2001	ARCH 202	Intermediate Architectural Design
Fall 2001	ARCH 477	Research Design Studio in Advanced Environmental Systems
Spring 2002	ARCH 214	Mechanical Systems
Spring 2002	ARCH 313	Hydraulic Systems
Spring 2002	ARCH 213	Lighting, Illumination and Power
Spring 2002	ARCH 202	Intermediate Architectural Design
Spring 2002	ARCH 477	Research Design Studio in Advanced Environmental Systems
Fall 2002	ARCH 313	Hydraulic Systems
Fall 2002	ARCH 316	Mechanical Systems
Fall 2002	ARCH 477	Advanced Environmental Design
Fall 2002	ARCH 699	Independent Graduate Study Course
Spring 2003	ARCH 302	Intermediate Design Studio
Spring 2003	ARCH 315	Lighting, Power and Acoustical Systems
Spring 2003	ARCH 399	Independent study (undergraduate)
Fall 2003	ARCH 315	Mechanical Systems
Fall 2003	ARCH 301	Advanced Design Studio
Spring 2004	ARCH 315	Lighting, Power and Acoustical Systems
Spring 2004	ARCH 399	Independent study (undergraduate)
Spring 2004	ARCH 508	Doctorate Dissertation Research
Fall 2004	ARCH 316	Environmental Design and Mechanical Systems
Fall 2004	ARCH 507	Doctorate Dissertation Research
Spring 2005	ARCH 315	Lighting, Power and Acoustical Systems
Fall 2005	ARCH 316	Environmental Design and Mechanical Systems
Fall 2006	ARCH 316	Environmental Design and Mechanical Systems
Fall 2007	ARCH 316	Environmental Design and Mechanical Systems
Fall 2007	ARCH 201	Intermediate Architectural Design
Fall 2007	ARCH 699	Elective
Spring 2008	ARCH 202	Intermediate Architectural Studio
Spring 2008	ARCH 321	Intro to Arch Systems B
Spring 2008	ARCH 399	Independent Study (undergrad)
Spring 2008	ARCH 699	Independent Study (grad)
Fall 2008	ARCH 321	Intro to Arch Systems B
Fall 2008	ARCH 525	Arch Systems IV- Sustainable Systems
Fall 2008	ARCH 587	Doctorate Dissertation Research
Fall 2008	ARCH 699	Elective
Spring 2009	ARCH 322	Principles of Sustainable Systems
Spring 2009	ARCH 490	Elective

Spring 2009	ARCH 399	Elective
Spring 2009	ARCH 546	Doctorate Dissertation Research
Spring 2009	ARCH 690	Elective
Fall 2009	ARCH 321	Intro to Arch Systems B
Fall 2009	Arch 399	Elective
Fall 2009	ARCH 525	Arch Systems IV- Sustainable Systems
Fall 2009	ARCH 548	Doctorate Dissertation Research
Fall 2009	ARCH 546	Doctorate Dissertation Research
Spring 2010	ARCH 525	Arch Systems IV- Sustainable Systems
Spring 2010	ARCH 546	Doctorate Dissertation Research
Spring 2010	ARCH 548	Doctorate Dissertation Research
Spring 2010	ARCH 588	Doctorate Dissertation Research
Spring 2010	ARCH 699	Elective
Fall 2010	ARCH321	Intro to Arch Systems B
Fall 2010	ARCH 548	Doctorate Dissertation Research
Fall 2010	ARCH 548	Doctorate Dissertation Research
Fall 2010	ARCH 699	Elective
Spring 2011	ARCH 525	Arch Systems IV- Sustainable Systems
Spring 2011	ARCH 546	Doctorate Dissertation Research
Spring 2011	ARCH 548	Doctorate Dissertation Research
Fall 2011	ARCH 546	Doctorate Dissertation Research
Fall 2011	ARCH 548	Doctorate Dissertation Research
Fall 2011	ARCH 588	Doctorate Dissertation Research
Spring 2012	ARCH 546	Doctorate Dissertation Research
Spring 2012	ARCH 548	Doctorate Dissertation Research
Spring 2012	ARCH 699	Elective
Fall 2012	ARCH 588	Doctorate Dissertation Research
Fall 2012	ARCH 699	Elective
Spring 2013	ARCH 588	Doctorate Dissertation Research
Spring 2013	ARCH 699	Elective
Fall 2013	ARCH 699	Elective
Fall 2016	ARCH 100	Intro to the Built Environment
Fall 2016	ARCH 490	Elective
Fall 2016	ARCH 748H	Doctorate Dissertation Research
Fall 2016	ARCH 748T	Doctorate Dissertation Research
Fall 2016	ARCH 786H	Doctorate Dissertation Research
Spring 2017	ARCH 725	Sustainable Systems IV
Spring 2017	ARCH 342	Intermediate Architectural Studio
Spring 2017	ARCH 786	Doctorate Dissertation Research
Spring 2017	ARCH 786 T	Doctorate Dissertation Research
Spring 2017	ARCH 342	Intermediate Studio
Fall 2017	ARCH 784	Doctorate Dissertation Research
Fall 2017	ARCH 690	Elective
Fall 2017	ARCH 100	Intro to the Built Environment

3.0- RESEARCH

The research projects conducted through the School of Architecture 's Environmental Research and Design Lab (ERDL) and the Sea Grant College Program's Center for Smart Building and Community Design (CSBCD) are aimed at bringing new information to the field to improve comfort and energy performance and promote renewable energy opportunities in architecture, especially within the State of Hawaii and Pacific Region. The research projects have employed at least 94 graduate and undergraduate students over the last 10 years. Most have been architecture students but students have come from a vast array of academic units. Currently this research enterprise employs one full time specialist, a part time mechanical engineer, four grad and three undergrad students. I serve as executive director and principle investigator. We maintain close strategic ties with partner organizations. The following is an abbreviated list of selected research projects.

3.1- Current Research (2014-17)

- **Project FROG Monitoring Projects** (2016-2019) Project FROG are prefab 1028 sq ft Net Zero classroom buildings installed on two UH campuses. They are funded by the Office of Naval Research (ONR) to ERDL through the Hawaii Natural Energy Institute (HNEI)
 - **PV and Battery Monitoring, UHM Campus** – (Begins Oct.2017)- \$25,000.
 - **Energy and Thermal Comfort Monitoring, UHM Campus** – (2016-present)- \$34,000.
 - **Energy and Thermal Comfort Monitoring, Kauai Campus-** (2016-present)- \$23,000.

- **Other current ONR / HNEI funded projects**
 - **Ceiling Fan and Controls Study-** (Begins 2nd quarter 2018)- \$80,000
 - **Desiccant Dehumidification Pilot** – (Begins 2nd quarter 2018)- \$7,500
 - **PV Heat Pump Water Heating Study-** (Begins 2nd quarter 2018) - \$50,000. In collaboration with the Florida Solar Energy Center

- **Building Performance Assessments, High-Performance Design and Training Projects:** These three projects are supported by the State of Hawaii's Barrel Tax Fund through the Hawaii Natural Energy Institute.
 - **Department of Hawaiian Homelands (DHHL) Project** (2016-18) \$270,000.
 - Bioclimatic and Energy Monitoring of 9 DHHL homes.
 - Revit models for performance analysis
 - Provide net zero design options for self help and developer built units
 - **Net Zero Design Recommendations to Hawaii Dept of Education** (2017-18) - \$60,000
 - **Professional Development and Technical Training** (2017-18) \$124,000
 - Daylighting, Energy Simulation, Net Zero Design training sessions

- **UH Manoa Building Information Management Project** (2010-2015)
 - Funded by the Vice Chancellor for Administration, Finance & Operations
 - \$938,000 over 5 years
 - Converted blue prints of campus buildings to BIM docs. Became a planning and facilities resource for the campus. Incorporated GIS technology, 3D Autocad and Revit models and some energy / comfort performance modeling.

- **Natural Ventilation Research (2012-2014)**
 - Funded by Office of Naval Research via Hawai'i Natural Energy Institute (HNEI)
 - \$312,645 over 2 years
 - Modeled buildings in computational fluid dynamics (CFD) software, to assess and maximize natural ventilation in new buildings. Was used by campus Planning Office for upcoming building projects
- **Outreach College Heat Mitigation project (2014-2015)**
 - Funded by Outreach College (and Barrel Tax funds)
 - \$30,000
 - Testing and developing strategies to improve thermal comfort in their naturally ventilated open office space on the third floor of Sinclair Library.
- **Building Monitoring and Performance Analysis (2016-2017)**
 - Funded by Hawai'i State Barrel Tax funds via Hawai'i Natural Energy Institute
 - \$250,000 over 1 year, 9 months
 - Develop monitoring protocols, assisting with installation of monitoring systems for energy audits and educational purposes (i.e. Eva Elementary School, Kauai Police Department, and Ka Honua Momona in Molokai) and developing workshop curricula.

3.2- Recent Research (2008-2014)

- **Maui Smart Grid Project (and Smart Inverter Project) (2011-2014)**
 - Funded by US Department of Energy via Hawai'i Natural Energy Institute
 - \$172,381 over 2-1/2 years
 - Collect and manage data for HNEI project to evaluate the use of smart meters to improve power quality and grid stability as more renewable (inherently variable) energy sources are added to the grid.
- **Forest City Solar Water Heating Study**
 - Funded by Hawai'i Energy
 - \$46,270 for 1 year
- **Building Energy Simulation Training**
 - Funded by the Hawai'i State Office of the Workforce Investment Board
 - \$81,000 for 9 months
 - Held the first course in energy simulation at the School of Architecture, held two advanced lighting workshops for students and professionals (60 attendees) and funded five summer internships for 12 weeks in local architecture firms.
- **Advanced Energy Auditing Studies**
 - Funded by Hawai'i Natural Energy Institute
 - \$264,721 over 3 years
 - Advanced energy auditing of military homes managed by Forest City; auditing of the Building Industry Association's "New Hawaiian Home"; and energy and environmental monitoring of Kuykendall Hall.

- **Forest City Preliminary Energy Auditing Study**
 - Funded by Hawai'i Natural Energy Institute
 - \$119,111 over 2 years
 - Energy auditing of military homes managed by Forest City
- **Kuykendall Lighting Design**
 - DBEDT- (State Energy Office)
 - \$20,000
 - Funded advanced lighting design and two workshops
- **Environmentally Preferable Product Guide**
 - DBEDT (State Energy Office)
 - \$50,000 for 1-1/2 year
- **University of Hawaii Manoa Building Design Guidelines**
 - \$30,000 UHM
 - Develop new campus building design guidelines for new construction and large renovations

3.2- Past Research (2000-2008)

- **Energy Efficient Residential Research, Design and Demonstration**
 - Funded by: US Dept of Energy- Research passive design and energy efficient design and operation strategies appropriate for a tropical/sub-tropical climate.
- **Assessing Solar Energy Potential on Existing Buildings**
 - Funded by: Hawaiian Electric Co. Inc and the Electric Power Research Institute (EPRI).
- **Solar Assessment Rooftop Study for University of Hawaii**
 - Funded by: US Department of Energy Million Solar Roofs Program
- **Assessment for Reducing Energy Consumption, Reducing Costs and Increasing Comfort in Hawaii's Low Income Housing Sector**
 - Funded by: US Department of Energy, Administered through the State Energy Office
- **Monitoring Portable Classroom Buildings in Hawaii**
 - Funded by: US Dept of Energy- Rebuild America Program
- **Research and Design of Energy Efficient, Comfortable Portable Classrooms for Hawaii**
 - Funded by: Group 70 Charitable Foundation Substantial pro-bono service improved classroom design and building design analysis for comfort and energy demand
- **Assessing Energy Efficient Gas Technology Applications , University of Hawaii at Manoa Campus**
 - Funded by: US Department of Energy, Administered through the State Energy Office, with matches from the Gas Technology Institute (GTI), the Gas Company and the University of Hawaii
- **Sustainable Design Guidelines Montessori Schools of Maui**
 - Funded by: US Department of Energy
- **Oahu Shoreline Impacts due to Global Climate Change Modeling**
 - Research on global temperature increases and ensuing sea level rise. Used GIS, aerial images, digital elevation models and animation software to illustrate the effects of sea level increases for the Island of Oahu.

- **Mitigating Heat Gain Through Residential Roofs, Insulation, Radiant Barrier and Gable Vent Study**
 - Funded By: US Environmental Protection Agency and Hawaii Dept of Health
 - Environmental Building Coalition of Hawaii Program

4.0- PUBLICATIONS

4.1 -Books

Furuhashi J., Huddleston N., Meder S., O'Brien K. 2001

“Field Guide for Energy Performance, Comfort and Value in Hawaii’s Homes”

Published by State of Hawaii Department of Business Economic Development and Tourism and the American Institute of Architects Honolulu Chapter,

Residential passive and energy conservation design book.

I was the principle author of design standards, energy efficient research and created graphic design and book layout. (50% contribution)

4.2 Edited Volumes

Meder, S., Olgyay, V., 2000 Building- Integrated Photovoltaic Designs for Commercial and Institutional Structures - *A Source Book for Architects National Renewable Energy Laboratories Publication,* March 2000 (50% contribution)

Ewell, A., Meder, S., Mullahey, R., Suzuki-Jones, G., et al, “Guide to Energy and Resource Efficient Building in Hawaii”

Produced by the Hawaii Advanced Building Technologies Training Program

Funded by the US Dept of Energy (50% contribution)

4.3 Articles in International or National Refereed Journals

Meder, S. *Designing a Multi-functional, High-performance Envelope for a Classroom/Office Renovation*

7th International ENERGY FORUM on Solar Building Skins

Preceedings (100% contribution)

December 2012 Bressanone, Italy

Meder, S., Pennetier, O., “A Study to Assess Solar Energy Potential Striking Existing Urban Rooftops in Honolulu, Hawaii” 2006 *American Solar Energy Society Conference Proceedings* (50% contribution)

Meder, S., “Reassessing Residential Design In Hawaii: Design, Construction, Building Analysis and Publishing Design Guidelines for a Passive-Design, Model Home on Hawaiian Homelands” 2006

Fifteenth Symposium on Improving Building Systems in Hot and Humid Climates conference proceedings (100% contribution)

Meder, S., “Merging Science with Design: Seeking Long-Term Solutions For Coastal Communities” 2006 *Islands of the World Conference Maui Community College,* Published abstract

Meder S., Winans-Burns C., Hardcastle H., “Growing Global Citizens at Montessori School of Maui”

2006, *Islands of the World Conference Maui Community College,*

Published Abstract (30% contribution)

Meder, S., Pennetier, O., Edinger, R., 2005 “The Energy and Environmental Impacts of Mega-Projects in Coastal Zones”

Proceeding, Sixth International Symposium on Asia Pacific Architecture, Shanghai, China (80% contribution)

Meder, Stephen, Gordon Grau, and John Carey. 2005 “Marine Laboratories for the 21st Century”. *Voice of the Pacific, Pacific Congress on Marine Science and Technology, International* (PACON International), Spring, vol. 21, No. 1 (33% contribution)

Meder S., Pennetier O., “Assessment of Solar Energy Potential on Existing Buildings” 2004 *Electric Power Research Institute (EPRI), Technical Journal* (50% contribution)

Olgay V., Kobayashi K., Meder S., " Monitoring the Effectiveness of Natural Ventilation Design in a Hilo, Hawaii Medical Building" 2000 *American Solar Energy Society Conference, Proceedings* Madison, Wisconsin, (40% contribution)

4.4 Articles in Other Publications

Meder, S. “Now Is The Time For Rational Development”. June 9, 2006 *Honolulu Advertiser* editorial article,.

Rockwood, D., Meder, S.,(Editors) “Design at the Edge of Waikiki, An International Design Charrette”, *Fifth International Symposium on Asia Pacific Architecture* Honolulu, HI

Meder, S. "Integrated Termite Control for Hawaii's Homes" June / July 2000 *Home Energy Magazine* cover story

Meder, S., " Clean Power, Photovoltaics for Hawaii and the Pacific Islands" Nov 1996 *Hawaii Pacific Architecture Journal*

4.5 Unpublished Work

Meder S., Winans-Burns C., Peterson H., Talbot T “Guidelines of Sustainability for the Montessori School of Maui”. 2005

Montessori School of Maui, - Sustainable Design and Operational Guidelines that integrate educational philosophy and sustainable design principles. (70% contribution)

Meder, S., Pennetier, O., Tosaki, J., Rohlinger, C., et al, “Hawaii’s K-12 Portable Classrooms; Bioclimatic Monitoring, Assessment & Design Recommendations” 2004

Grau, G., Meder, S., . “Summary of Energy and Water Conservation Projects on the University of Hawaii at Manoa Campus”. 2004. Internal report to Jan Yokota, Director of Capital Improvements and other UH decision-makers Listing energy and water conservation projects and benefits to the university to institutionally committing to comprehensive and aggressive energy and water management plans. Center for Smart Building and Community Design activity.

Meder, S.Olgay, V. "Advancing the Model Energy Code in Hawaii's Homes" *Passive and Low Energy Architecture International Conference, Cambridge, England* 2000 Poster Presentation (50% Contribution)

Meder, S.Olgay, V. "Daylighting Guidelines for Hawaii's Buildings" *Passive and Low Energy Architecture International Conference, Cambridge, England* 2000 Poster Presentation (50% Contribution)

4.0- SERVICE TO THE COMMUNITY

State of Hawaii Clean Energy Initiative (2008-2014)

One of 12 committee members on the Energy Efficiency Task Force to help guide Satae fo Hawaii policy towards its goal of achieving 70% renewable energy by 2030.

(DOE Portable Classroom Design (2008)

Faculty and students assisting Kuhuku High School administration and staff, and collaborating with Group 70 Architects and Lincolne Scott Engineers to evaluate and make design recommendations for improving the comfort and energy performance in portable classrooms on the Kuhuku HS campus.

Honolulu Charter Commission (2006, 2005)

Commissioner appointed by Honolulu Mayor Jeremy Harris.

Purpose to collect, review and select proposed amendments to the City of Honolulu Charter. Final selection to be placed on ballot in November 2006

American Institute of Architects, Honolulu Chapter, COTE (2010-1996)

COTE (Committee on the Environment)

Committee Co-Chair (2003- 1999)

Committee member (1999- 1996, 2006- 2003)

Montessori Community School of Oahu (MCS) (2009- 2001)

Board of Trustees member since 2001, President-elect, Board of Trustees 2006

Nonprofit, 200 children, preschool through sixth grade, private school in Honolulu

Kailua Urban Design Task Force (KUDTF) (2009- 1994)

Member and Board of Directors member every year since the organization's inception in 1994 with a hiatus from 2001-2004.

Community based advisory group dedicated guiding urban design in the central business district of Kailua, a town of 50,000 on the Windward side of Oahu.

Urban Design Workshops for Kailua (2006-2004)

In Kailua, Oahu, Hawaii Sea Grant with the US EPA's Smart Growth Office provided national experts and underwrote the development of a Planning Practicum through the Department of Urban and Regional Planning to help the community deal with redevelopment and urban growth issues

Rebuild Hawaii Consortium (1997-2007)

Supported in part by US Dept. of Energy's Rebuild America program. Founding member, School of Architecture representative since 1997. Consortium comprised of federal, state and municipal agencies, utilities, profit and non profit entities dedicated to developing long-term energy reduction in the Hawaii public and private sectors.

Hawaii Energy Policy Forum (2010, 2005)

Policy Forum member and Co-Chair of the Energy Efficiency Working Group

Advisory stakeholder group, advises legislature on energy issues, policy development. Develops energy conservation demonstration projects and provides educational outreach to community.

Bringing Comfort and Energy Savings to Multifamily Affordable Housing in Hawaii (2007-2005)

Advisory Role

Several strategic meetings with, and presentation to, State of Hawaii, Federal Agency for Housing and Urban Development (HUD) and non-profit affordable/low income housing agencies on reducing energy use, and costs, and increasing comfort in low income housing settings. Provide pro-bono consulting to Housing and Community Development Authority of Hawaii (HCDCH) [state housing office] for energy efficiency retrofit of 5500 existing housing units and provide guidance for new design to reduce energy use and improve comfort in HCDCH facilities

Malama Learning Center (2005)

Juror for international design competition for a cultural learning center on the grounds of Kapolei High School – Competition sponsored by the Hawaii Nature Conservancy

Volcano Art Center (2005)

Pro-bono sustainable design consultation to Board of Directors and project architects. Project moving forward as energy and resource conserving sustainable design demonstration- will be open to the public.

Hawaii Commercial Building Energy Efficient Guidelines (2003-2000)

Task Force member

Assisting State Energy Office at DBEDT and their contractor, Eley and Associates, to draft energy efficiency design and retrofit standards for commercial buildings in Hawaii.

Hawaii Building Industry Association Green Building Rating System (2001)

Advisory Committee Member

Committee to develop a residential green building rating system, BuiltGreen Hawaii.

Hawaiian Electric Company Inc Building Energy Efficiency Awards (2001 & 2000)

Chair

Awards Committee 2001, Awards Committee Member 2000
Design Award jury for energy efficient building projects

American Institute of Architects, Honolulu Chapter, COTE

Committee on Housing the Homeless (1989-1988)

Committee Member

Hawaii Advanced Building Technologies Program

Co-author the “Guide to Resource Efficient Building in Hawaii” and conduct “Energy and Resource Efficient Residential Design” workshops around the state of Hawaii.

Green House Hawaii Project

Research and educational outreach—developed displays printed materials for exhibits and presentations around the state on energy / resource efficient and healthful residential design and operation.

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Environmental Building Coalition of Hawaii Program

Initiated the Construction and Demolition Waste Management Program on Oahu which resulted in diverting thousands of tons of concrete and other construction and demolition from island landfills. Provided public presentations and held workshops of the benefits of solar hot water installations for low income housing. Provided assistance to champion

recycling and energy efficiency on university of Hawaii campuses. Supported four students to assist with research and educational outreach.

Solar Hot Water and Solar Energy Opportunities for Self-Help Housing in Hawaii

Series of workshops to provide information and identify cost effective opportunities for the application of solar energy technologies in self-help and low-income housing developments.

6.0- SERVICE TO UNIVERSITY OF HAWAII

Assistant Vice Chancellor Office of Planning and Facilities University of Hawaii Manoa
(2013-2015)

Assistant Vice Chancellor Office of Planning University of Hawaii Manoa (2011-2013)

Association of Collegial Schools of Architecture
Western States Regional Director (2008-2011)

UHM Chancellor's Commission on Climate Change (2006 – 2009)
Advise UH Manoa administration on climate policy, emissions mitigation and climate change adaptation approaches.

UH Manoa Energy Efficiency Advisory Committee (2006-2009)
Advise on energy policy and energy efficiency implementation to UH Manoa administration

UHM/HECO Partnership Advisory Committee (2005-2009 and 1998- 2001)
Advisory committee member- assist UHM administration develop energy conservation project and programs for UHM and to draw optimal benefits from partnership with electric utility company.

UHM Chancellor's Council on Sustainability (2005- 2010)
Council Member, Chair of the Energy Committee.

UHM Chancellor's Facilities Management Review Committee (2005-2006)
Five member committee to review UHM facilities services and make recommendations to chancellor and vice chancellor for improvements.

University of Hawaii Energy Star Dorm Demonstration Project
Provided research on energy efficient university housing.

UHM/Honolulu Board of Water Supply MOU (2003- 2005)
Established agreement between the City and County of Honolulu Board of Water Supply and UHM. The Memorandum of Understanding was signed in 2003. This agreement led to the \$100,000 UHM water audit that was funded by the Board of water supply in 2004.

UHM Energy Benchmark document (2003)
Assesses energy use on a per-building basis for the first time at UHM. Funded in part by HECO, Sea Grant and by UHM Office of the Chancellor. Provided service to initiate and implement the project.

UHM Campus Assist Documents (2004-2006)
The following documents is an ongoing effort by Center for Smart Building and Community Design staff to bring information to the UHM administration to assist in the decisions of transforming UHM and UH into an energy efficient campus.

Information on: The Cost of Green Buildings & A List of LEED Projects (2006)
High Performance Best-Practice Kitchen Model (2006)
University of Hawaii Energy Star Partnership Benefits (2006)
Summary of Energy and Water Conservation Projects on the University of Hawaii at Manoa Campus (2004)
University of Hawaii at Manoa Sustainability Retreat (2005)
The Cost Benefits of Energy Star Products (2006)

Kapiolani Community College, Culinary Institute of the Pacific (2004-2006)

Assist KCC administration and faculty to create a model for sustainable design, energy conservation and community benefits in the new Culinary Institute of the Pacific building.

Assistance to the Office of Capital Improvements (2004-2006)

Advise to the UH system's CIP office, meet with contractors and provide RFP language for energy conservation, energy efficiency and sustainable building design for the UH campuses.

7.0- PROFESSIONAL EXPERIENCE

7.1-University of Hawaii

- **Assistant Vice Chancellor Office of Planning and Facilities University of Hawaii Manoa (2013-2015)**
 - Duties included; Responsibility for all planning and managing annual budget of approximately \$50M design and construction and \$50M annual operational budget. All campus master planning, space planning, building design, construction and maintenance and all aspects of janitorial and landscape maintenance. Included management of over 350 professional, clerical and trades personnel.
- **Assistant Vice Chancellor Office of Planning University of Hawaii Manoa (2011-2013)**
 - Duties included; creating and institutionalizing, campus Landscape Master Plan, Space Management plans, Transportation Management Plan, Infrastructure Plans, Building Design, Energy and Sustainability Plans.

7.2- Architecture Firms

- **Victor Olgyay AIA (1996-2000)**
 - Responsibilities Included; Project Manager, Designer, Energy Specialist
- **Donald Shaw AIA (1989- 1995)**
 - Responsibilities Included; Project Manager, Designer, Energy Specialist

7.3 Independent Consulting

- **High-Performance Zero-Energy Portable Classroom Design Competition, Anderson and Anderson Architects (2008)**
 - Sustainable/passive design, renewable energy project consultant
 - National Competition, sponsored by State of Hawaii Department of Education
 - Competition & Project awarded in September 2009
 - Final design and construction to take place 2010-11
 - Received 2008 SPARK International Design Award – Silver designation
- **American Samoa Community College (2004)**
 - Energy/Sustainable Design Consultant
 - Provide assessment on the energy/resource conservation and renewable energy opportunities to the college facilities.

- **Durant Media Five Architects for the Yongsan Army Garrison, Korea (2002)**
 - Sustainable Design Consultant
 - Coordinate team of environmental engineers and consultants to make recommendations to ongoing designs for compliance to US Army sustainable design guidelines.
- **Greening Federal Facilities Initiative, ENSAR Architects, Boulder Colorado for the Kaneohe Marine Corp Base (2002)**
 - Sustainable Design Consultant
 - Provide existing conditions assessment for sustainable planning and design charrette.
- **Design and Construction of the Model Energy House, Department of Hawaiian Homelands in Waianae, Hawaii, for Nick Huddleston AIA (2001)**
 - Energy/ Ecological Design Consultant to project architect. Design was based on passive design principles that were articulated and illustrated in the Hawaii Field Guide.
- **State of Hawaii, Residential Energy Efficiency Design Guidelines – Hawaii State Energy Office and the US Dept. of Energy (2001)**
 - Research, write, graphic design, and provide educational outreach, “Field Guide for Energy Performance, Comfort and Value in Hawaii’s Homes” published for the State of Hawaii
- **Photovoltaic Design US Postal System—USPS and Lawrence Berkeley Laboratory (2001)**
 - Provide design options and cost assessment for standardized photovoltaic system for US Post Office facilities in Hawaii/ Pacific Region.
- **Green Office Project (2001)**
 - US Dept. of Energy funded- Research and educational outreach project aimed at promoting resource and energy efficient office design and operation. Performed in conjunction with the State Energy Division at DBEDT and the Honolulu American Institute of Architects.
- **Building Applied Photovoltaic Design Options (2000)**
 - ProVision Hawaii (subsidiary of Hawaiian Electric Industries) Provide design options and cost estimates for 60kW building applied photovoltaic systems for commercial buildings in Hawaii.
- **Photovoltaic Canopy Design (2000)**
 - Hawaiian Electric Co. Inc . Design semi-transparent photovoltaic canopy for the entrance of the electric utility office building. (unbuilt)
- **Photovoltaic Research, Design and Demonstration Project**
 - US Dept. of Energy, National Renewable Energy Laboratory and Hawaiian Electric Co. Research, design, construct and monitor first roof-integrated photovoltaic system in Hawaii. Supported by the US Navy and located at Pearl Harbor.

8.0- Awards

8.1- Student Awards

University of Hawaii Manoa (UHM) Employee Team of the Year Award (2012)

Award to the Environmental Research and Design Lab student team for their work with the UHM Planning Office to create BIM documents for campus Planning and Facilities Department's use

USGCC Natural Talent Design Competition: Broadmore New Orleans 2010

Design completion incorporated into the Sustainable Systems class. Project won competition. Has been built.

8.2 – Independent Awards

US Patent - Methods to Assess Solar Energy Potential on Buildings (2003)

Hung Wo and Elizabeth Lau Ching Foundation

2008 recipient of the University of Hawaii Faculty Service to the Community Award

National Association of Independent Schools 2006 Leading Edge Program, Environmental Sustainability Award (2006)

MOMI has received a National Association of Independent Schools (NAIS) award for its efforts integrated design efforts and the design has recently been awarded the Environmental Sustainability Award. While this award goes to MOMI, this reflects some of the work of the applicant.

Champions of Ecological Literacy in Architecture Education (2005)

I was recognized in the *Ecology and Design: Ecological Literacy in Architecture Education 2006 Report and Proposal AIA*.

Co-Partner National Partnership of the Year Award (2004)

US Department of Energy, Rebuild America Program
School of Architecture and other partners recognized for successful projects to reduce energy demand and improve energy efficiency in Hawaii

Student Annual Faculty Member Award (2003)

University of Hawaii, School of Architecture
Graduating Class of 2003

Distinguished Alumnus of the Year Award (2003)

University of Hawaii, School of Architecture Alumni Association

US Department of Energy Book Award (2003)

"Field Guide for Energy Performance, Comfort & Value in Hawaii Homes"
Instructional Book Category – Second Place

Sustainable Design Award (2003)

Honolulu Chapter American Institute of Architects
Team Project with Nick Huddleston AIA
Energy/Sustainability Consultant to for the Hawaiian Homelands Model Energy Home

Federal Energy and Water Management Design Award (2001)

Building integrated photovoltaic project Pearl Harbor Naval Base Hawaii

Energy Partnership Award (2001)

Recognition for advancing energy conservation on University of Hawaii campuses
Hawaiian Electric Company Inc.

President's Award (1999)

American Institute of Architects Honolulu Chapter
Recognition for work in energy / resource efficient design outreach programs