FILE: Joseph_ Assignment_PUBLICATION_2014_LONDON.doc by Joseph T, Wunderlich PhD, 2014

EDUCATIONAL ASSIGNMENT for JOSEPH JOHN WUNDERLICH for his 3rd trimester of 10th grade

This assignment covers the following Educational Objectives (Subjects marked with a "■" are the main subject, and those marked with an "□" are secondary subjects):

- ■ 1. READING (ENGLISH)
- ■ 2. WRITING (ENGLISH)
- □ 3. ALGEBRA 2
- 4. CHEMISTRY
- ■ 5. WORLD HISTORY
- □ 6. LATIN II
- ■ 7. WORLD CULTURAL ARTS
- 8. PHYSICAL EDUCATION

ASSIGNMENT:

Help present the following co-authored peer-reviewed paper in London England in May, 2014:

Wunderlich, J.T. and Wunderlich, J.J. (2014). **Crowdsourced architecture and environmental design.** *2nd International Conference on Emerging Trends in Engineering and Technology (ICETET'2014,* May 30-31, 2014 London (United Kingdom).

JOSEPH'S WORK:

SUMMARY: The following presentation was co-created and co-presented by Joseph John Wunderlich with his Father in London, England on May 31st, 2014. The paper is available on-line here:
http://users.etown.edu/w/wunderjt/JOSEPH%20SCHOOL/Joseph%20WORK/Joseph_Assignment_PUBLICATION_TALK_2014_LONDON.pdf

At the Conference (Father at front table as a Session Chair and judge):

Pictures taken of us as we presented will be posted later by conference organizers.

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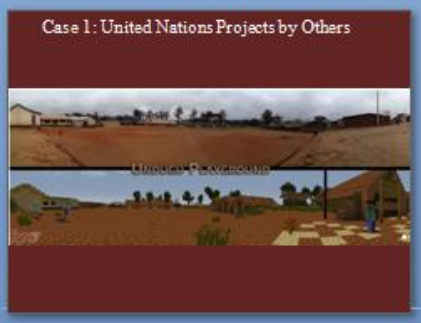

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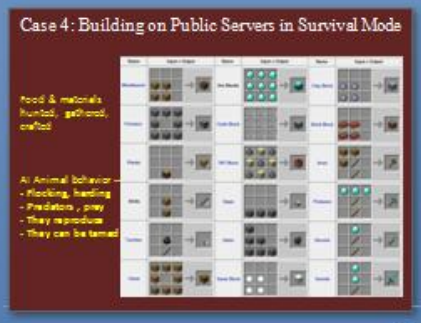

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Case 8: Creating Sustainable Towns (College Freshmen)

ACTIVE SOLAR: Creatively angle solar panels towards the sun

NATURAL DAY-LIGHTING: Maximize sunlight while not overheating house

MITIGATE COLD NORTHERN WIND: but consider day-lighting and views

COMMUNITY GARDEN: of edible plants -- sky/hoe ground, irrigate, and fertilize. Plant carrots, potatoes, etc.

COMMUNITY LIVESTOCK: Create animal pens & shelters; breed animals for meat and milk

ARCHITECTURAL ESTHETIC: -- livable and esthetic on interior and exterior -and complimentary to all else in village

URBAN DESIGN and CITY PLANNING: Create PATHS, NODES, EDGES, GATEWAYS, and DISTRICTS including piazza's, a central market, a central park, etc.

WELLNESS CENTER: designate a large lot to be used by visiting high-school students to build a Wellness Center in your town (with indoor pool, large activity room, and lockers)

EXTRA CREDIT: Make something electromechanical with circuits and logic gates.

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Case 8: Creating Sustainable Towns (College Freshmen)

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Case 8: Creating Sustainable Towns (College Freshmen)

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Case 8: Creating Sustainable Towns (College Freshmen)

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Case 8: Creating Sustainable Towns (College Freshmen)

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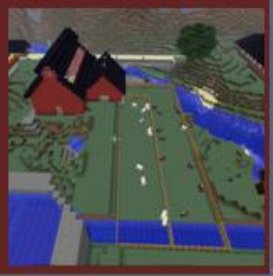
Case 8: Creating Sustainable Towns (College Freshmen)



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Case 9: Wellness Center Competition #1

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Case 10: Creating a Digital-Circuit Design World

20

Case 11: Creating a Multi-World Server

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Case 11: Creating a Multi-World Server

Wunderlich "Tsojin" Server

For a more powerful server, a "BUKKIT" server mod "CRAFTBUKKIT" used to allow:

1. PLAYER RANKING: Ours are: Guest, Builder, Architect, Master Admin, and Grandmaster -- each having many accumulated commands. Bukkit plug-ins "ESSENTIALS," "PERMISSIONS," "CHAT," and "GROUPMANAGER" were configured.
2. SQL DATABASE SERVER and plug-in "LOGBLOCK" for logging player activity to allow rolling-back of "griefing" (destruction or construction by uninvited or misbehaving players). This initial release of Tsojin Server was public. Unfortunately, due to griefing (including organized griefing teams), Tsojin was made private.
3. MULTI-WORLD plug-in to allow concurrent worlds (and teleportation & gateways between). Tsojin has six worlds.
4. Many other plug-ins (foul-language censorship, establishing monetary systems, allowing aircraft and vehicles to move, locking local chests, sign-posting, etc.).

Case 11: Creating a Multi-World Server

- Main World
- Survival World
- Digital Design World
- FYSworld (four GREEN towns)
- Two private worlds

Case 11: Creating a Multi-World Server

- Main World

All players initially enter in town-center in Main World

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Case 11: Creating a Multi-World Server

* Main World

All players initially enter in town-center in Main World

25

Case 11: Creating a Multi-World Server

* Main World

They're then directed to bulletin board building and various portals to other worlds

26

Case 11: Creating a Multi-World Server

* Main World

They're then directed to bulletin board building and various portals to other worlds

27

Case 11: Creating a Multi-World Server

* Main World
* Survival World
* Digital Design World
* FJSworld (four GREEN towns)
* Two private worlds

Portals to other worlds

28

Case 12: Rapid Prototyping Real-World Architectures

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Case 12: Rapid Prototyping Real-World Architectures

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Case 12: Rapid Prototyping Real-World Architectures

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Case 12: Rapid Prototyping Real-World Architectures

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Case 12: Rapid Prototyping Real-World Architectures

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Case 12: Rapid Prototyping Real-World Architectures

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Case 12: Rapid Prototyping Real-World Architectures

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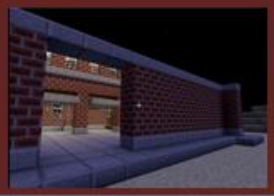
Case 12: Rapid Prototyping Real-World Architectures



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Case 12: Rapid Prototyping Real-World Architectures

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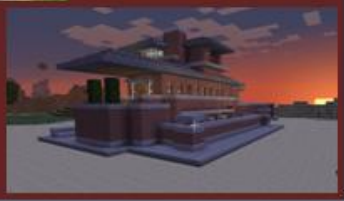
Case 12: Rapid Prototyping Real-World Architectures



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Case 13: Building College Campus (Student Ricky Sturz)

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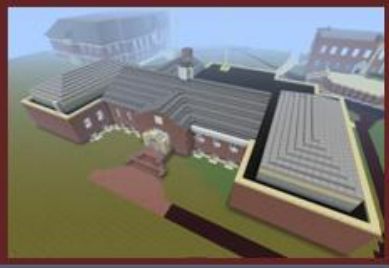
Case 13: Building College Campus (Student Ricky Sturz)



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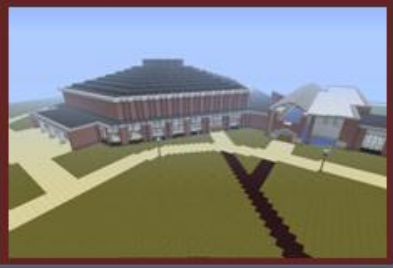
Case 13: Building College Campus (Student Ricky Sturz)



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Case 13: Building College Campus (Student Ricky Sturz)

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Case 14: Group-build of two Dormitories in Two Hours

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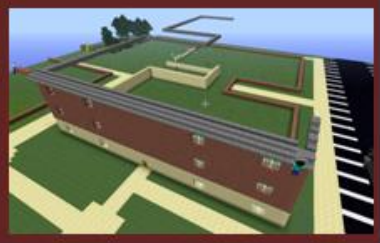
Case 14: Group-build of two Dormitories in Two Hours



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Case 14: Group-build of two Dormitories in Two Hours

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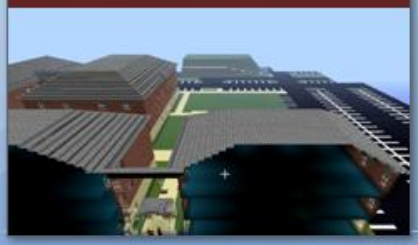
Case 14: Group-build of two Dormitories in Two Hours



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Case 14: Group-build of two Dormitories in Two Hours

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Case 14: Group-build of two Dormitories in Two Hours

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Case 15: Group-build of Engineering Center in Two Hours

ENGINEERING 280 "Engineering Research"
ENGINEERING 332 "Computer Organization & Architecture"
ENGINEERING 343 "Green Architectural Engineering "
PHILOSOPHY 275 "Science and Values"
FIRST YEAR SEMINAR 100 " Scientific Modeling for Sport"

52

Case 15: Group-build of Engineering Center in Two Hours

ENGINEERING 280 "Engineering Research"
ENGINEERING 332 "Computer Organization & Architecture"
ENGINEERING 343 "Green Architectural Engineering "
PHILOSOPHY 275 "Science and Values"
FIRST YEAR SEMINAR 100 " Scientific Modeling for Sport"

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Case 15: Group-build of Engineering Center in Two Hours

ENGINEERING 280 "Engineering Research"
ENGINEERING 332 "Computer Organization & Architecture"
ENGINEERING 343 "Green Architectural Engineering "
PHILOSOPHY 275 "Science and Values"
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FIRST YEAR SEMINAR 100 " Scientific Modeling for Sport"

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ENGINEERING 332 "Computer Organization & Architecture"
ENGINEERING 343 "Green Architectural Engineering "
PHILOSOPHY 275 "Science and Values"
FIRST YEAR SEMINAR 100 " Scientific Modeling for Sport"

Case 16: Visit to Australian Architectural Server

Case 17: Creating a Japanese Group-Harmony Server

After J. Wunderlich and son visited Japan in 2013

DISTRICTS – *Gathering people*

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Case 17: Creating a Japanese Group-Harmony Server

After J. Wunderlich and son visited Japan in 2013

DISTRICTS – *Tranquil retreats*

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Case 17: Creating a Japanese Group-Harmony Server

After J. Wunderlich and son visited Japan in 2013

DISTRICTS – *Tranquil retreats*

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Case 17: Creating a Japanese Group-Harmony Server

After J. Wunderlich and son visited Japan in 2013

DISTRICTS – *Tranquil retreats*

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Case 17: Creating a Japanese Group-Harmony Server

After J. Wunderlich and son visited Japan in 2013

PATHS - *Channel water*

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Case 17: Creating a Japanese Group-Harmony Server

After J. Wunderlich and son visited Japan in 2013

PATHS - *Channel water*

65

Case 17: Creating a Japanese Group-Harmony Server

After J. Wunderlich and son visited Japan in 2013

PATHS - *Channel water*

66

Case 17: Creating a Japanese Group-Harmony Server

After J. Wunderlich and son visited Japan in 2013

PATHS - *Channel people on water*

67

Case 17: Creating a Japanese Group-Harmony Server

After J. Wunderlich and son visited Japan in 2013

PATHS - *Channel people on land*

68

Case 17: Creating a Japanese Group-Harmony Server

After J. Wunderlich and son visited Japan in 2013

PATHS - *Channel people on land*

69

Case 17: Creating a Japanese Group-Harmony Server

After J. Wunderlich and son visited Japan in 2013

PATHS and EDGES – *Gateways*

Case 17: Creating a Japanese Group-Harmony Server

After J. Wunderlich and son visited Japan in 2013

PATHS and EDGES – *Gateways*

Case 17: Creating a Japanese Group-Harmony Server

After J. Wunderlich and son visited Japan in 2013

NODES – *Gathering people*

Slide Sorter | "Office Theme" | 100%

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Case 17: Creating a Japanese Group-Harmony Server

After J. Wunderlich and son visited Japan in 2013

NODES –
Gathering people

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Case 17: Creating a Japanese Group-Harmony Server

After J. Wunderlich and son visited Japan in 2013

NODES –
Gathering people

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Case 17: Creating a Japanese Group-Harmony Server

After J. Wunderlich and son visited Japan in 2013

NODES –
Gathering people

75

Case 18: Creating Four Japanese Towns (College Freshmen)

- Build a late-1800's Japanese town and home including:
  - PASSIVE SOLAR
  - THERMAL MASS
  - NATURAL DAY-LIGHTING
  - MITIGATED NORTHERN WIND
  - ARCHITECTURAL ESTHETIC

URBAN DESIGN: Create PATHS, NODES, EDGES, GATEWAYS, and DISTRICTS including a central market, central park with Japanese garden, community garden of edible plants (till, irrigate, plant carrots, potatoes, seeds, etc, and fertilize), Livestock in animal pens (Brood for eating and producing milk)

WELLNESS CENTER: designate a large lot to be used by visiting high-school students to build a Wellness Center in your town (MEDITATION ROOM, TRANQUILITY POOL, AND JAPANESE GARDEN)

GROUP HARMONY: Architecture must be complimentary to all else in village, and to group harmony ("Wa") of the village

PRIVATE SPACE: Build a private Japanese garden with a pond

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Case 18: Creating Four Japanese Towns (College Freshmen)

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Case 18: Creating Four Japanese Towns (College Freshmen)

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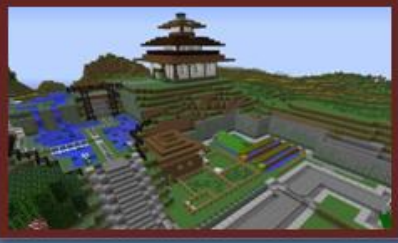
Case 18: Creating Four Japanese Towns (College Freshmen)



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Case 18: Creating Four Japanese Towns (College Freshmen)

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Case 18: Creating Four Japanese Towns (College Freshmen)

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Case 18: Creating Four Japanese Towns (College Freshmen)

Case 19: Wellness Center Competition #2

Case 20: Creating a European Architecture World

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Case 20: Creating a European Architecture World

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Case 20: Creating a European Architecture World

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Case 20: Creating a European Architecture World

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Case 20: Creating a European Architecture World

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Case 20: Creating a European Architecture World

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Case 20: Creating a European Architecture World

90

Case 20: Creating a European Architecture World

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Case 21: Creating a LEED and ISO Green World

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Joseph's contributions to the publication:

- Of the 21 case studies discussed in the paper, he designed and implemented in software 100% of the architecture shown in the following Case Studies:
  Case 2: Initial Designs
  Case 3: Building on Public Servers in Creative Mode
  Case 4: Building on Public Servers in Survival Mode
  Case 5: Building on Public Faction Servers
  Case 6: Creating a Protected Creative Server
  Case 7: Creating a Protected Survival Server
  Case 11: Creating a Multi-World Server
  Case 12: Rapid Prototyping Real-World Architectures
  Case 17: Creating a Japanese Group-Harmony Server
  Case 20: Creating a European Architecture World

- Of the 21 case studies discussed in the paper, he helped configure the software, maintain the servers, and teach College students how to design, build, and work the software for:
  Case 6: Creating a Protected Creative Server
  Case 7: Creating a Protected Survival Server
  Case 8: Creating Sustainable Towns
  Case 9: Wellness Center Competition #1
  Case 10: Creating a Digital-Circuit Design World
  Case 11: Creating a Multi-World Server
  Case 12: Rapid Prototyping Real-World Architectures
  Case 14: Group-build of two Dormitories in Two Hours
  Case 15: Group-build of Engineering Center in Two Hours
  Case 17: Creating a Japanese Group-Harmony Server
  Case 18: Creating Four Japanese Towns
  Case 19: Wellness Center Competition #2
  Case 20: Creating a European Architecture World

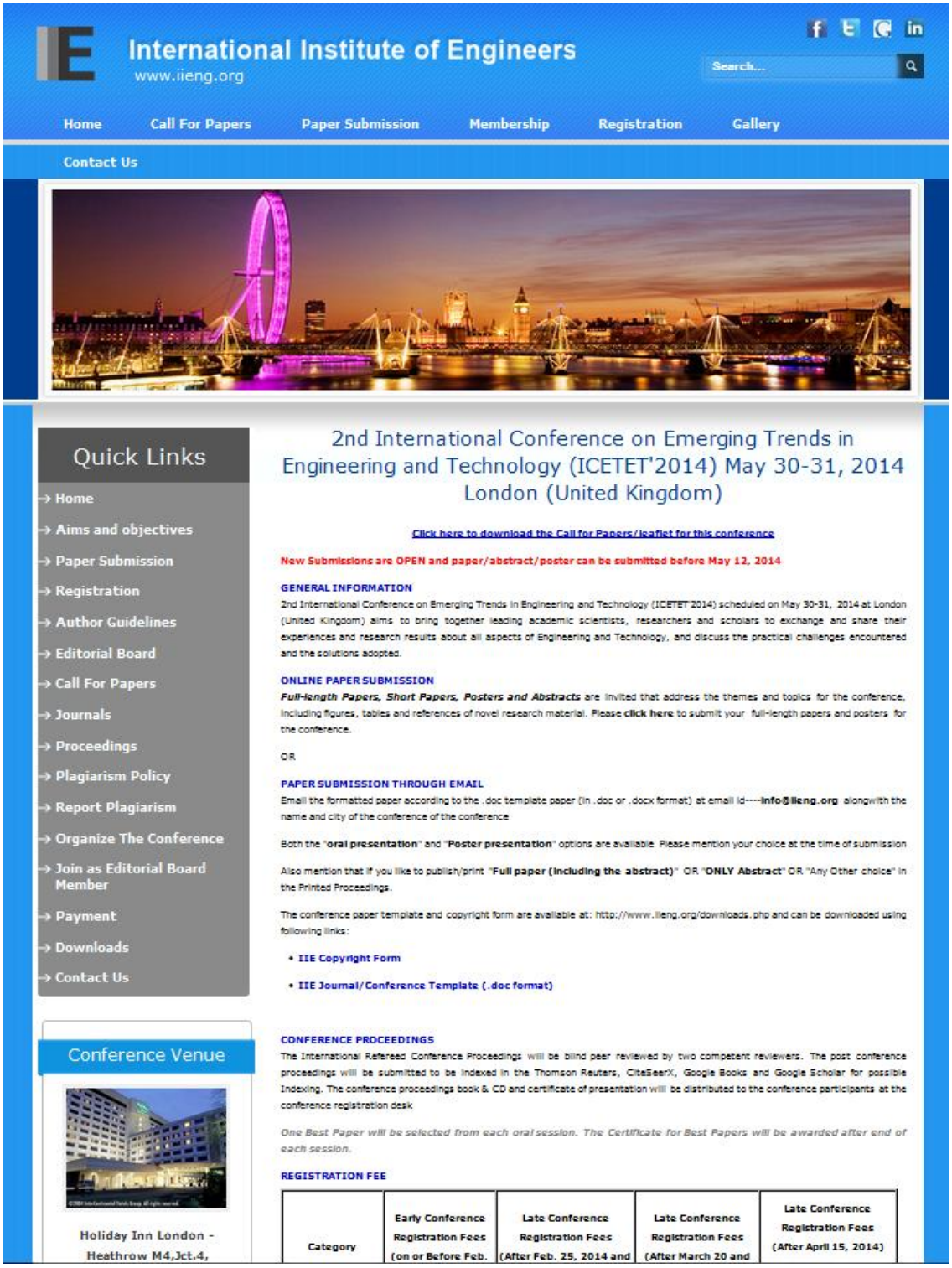
- Took many of the approximately 1000 photographs selected from for this publication while visiting Japan on a 40-day 2013 trip to Narita, Osaka, and Kyoto Japan (and a Japanese part of Hawaii), and significantly contributed to a publication and keynote talk with his father in Osaka:

  Wunderlich, J.T. and Wunderlich, J.J. (2013). **Green architecture and environmental design using rapid-prototyping social-networking sandbox tools, followed by professional architectural software.** *Asian Conference on Sustainability, Energy & the Environment (ACSEE 2013)*, June 6-9, Osaka, Japan.

  This paper is available on-line:
  http://users.etown.edu/w/wunderjt/Green_Social_Designs_Japan_paper_19.pdf
  This talk is available online:
  http://users.etown.edu/w/wunderjt/Green_Social_Designs_Japan_TALK_19_PLUS.pdf

- Edited the publication

CONFERENCE WEBSITE: http://www.iieng.org/2014/06/01/45



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