**INDEX** Structural materials

Sunspace

Thermal comfort Chapter 1, page 1 Thermal insulation Annual electricity Thermal mass storage Building energy consumption

Vacuum insulation panel (VIP)

Comfort Ventilation system

Distributed energy systems Wind energy conservation system (WECS)

Energy auditing Window-to-wall ratio (WWR)

Geothermal heat pumps Zero-Energy Building Heat energy

Indoor comfort levels Chapter, 3 page 81

Intelligent building control systems Aging

Intrinsic factors Collective Living Setting

Large commercial buildings Community development

Occupant behavior **Continuing Care Retirement Communities** 

Phenomenological reasons Control heat gain Variable-air valves (VAVs) Ecological footprint Ecological sustainability

Chapter 2, page 13 Feng Shui

Accent lighting Functional disability Agent-Based Intelligent (AI) control system

Gerontology Airtightness Grey wave

Comfortable temperature function Indoor air pollution Comfortable zone fraction (CZF) Lung capacity

Compound parabolic concentrator with evac-Natural Occurring Retirement community

(NORC)

Chapter 4, page 95

Neuromuscular coordination training

uated tube (XCPC) Control technology

Design strategies Radiant barriers Embodied energy

Solar thermal hot water system

High performance lighting (HPL) Split incentive program Life cycle energy Sustainable living Low-energy house

Volatile Organic Compounds (VOCs) Model Predictive Control (MPC) System

Water harvesting system Net-Zero Energy Building

Occupant comfort

Photovoltaic thermal cooling integrated

Anthropogenic (PVTCI) system Embodied energy Power mismatch Eutrophication

Rain water harvesting Life cycle assessment (LCA) Reflective materials Attributional LCA

Roofing materials Consequential LCA

Sky radiation cooling Microclimate 392 TAO & JIANG

PECAS Land use method

Retrofitting

Chapter 5, page 123

Building energy modeling

**Building Information Modelling (BIM)** 

Parametric BIM Cost estimation Heat pollution

Ice Thermal Storage (ITS) system Light Water Reactor (LWR) Mixed method of excavation Object Oriented Physical Modelling

Textural programming

Chapter 6, page 143

Building automation system (BAS)

Circulus vitiosus Compartmentalization Concurrent engineering

Dynamic Life-Cycle Information Modelling

(DLIM) iCodes

Industry Foundation Classes (IFC)

LEED Energy Performance Online Submis-

sion Tool (LEPOST)

Chapter 7, page 155

Agent-based modelling (ABM)

Bandwagon effect

Building energy consumption (BEC)

Cognitive biases

Complex adaptive systems (CAS)

Decoy effect
Distinction bias
Egocentric bias

False consensus effect

Framing effect Human behavior

Hyperbolic discounting

Negativity bias Modality effect

Reactance

Rhyme

Self-serving bias

Status quo

Variable refrigerant cooling (VRF)

Chapter 8, page 173

Cooling degree-days (CDD)

Energy policy

Heat degree-days (HDD) Influence coefficients (IC)

Occupancy focused interventions Occupancy influence coefficients

Rebound effect Sensitivity analysis Social marketing

Chapter 9, page 199

Building-scale ecosystem

Cognitive biases
Data-driven analysis

**Environmental Performance Index** 

Granularity

High level architecture (HLA) Human Development Index

Human-dimension
Learning Loop complex
Micro-infrastructures

Sensemaking
Situated action
Sustainable design
Thiessen polygons
Triple bottom line

Verification, validation and evaluation (VV

&E)

Wicked problems

Chapter 10, page 225

Advanced Control System for Net Zero En-

ergy Homes (AFCS-NZEH)

Annualized Embodied Energy (AEE)

Annual Energy Use (AEU)

Building Energy Quotient (Building EQ)

Building for Environmental and Economic Morpho-genetic architecture

Sustainability (BEES)

Carbon Accounting

Embodied energy

Environmental Product Declarations (EPDs) United Nations Environment Program

Hydrological cycle

International Energy Conservation Code

(IECC)

Life cycle assessment (LCA) Life cycle Inventory (LCI) Living Building challenge

Net Zero Carbon (nZC) Net Zero Emissions (nZM)

Net Zero Energy (nZE)

Net Zero Energy Buildings

Life cycle zero energy building (LC-ZEB)

Zero Energy Capable Homes (ZECH)

Net Zero Materials (nZM) Net Zero Water (nZW)

Smart grid Sustainability

## Chapter 11, page 251

2030 Challenge

Building America 12 program

Diaheliotropism

Eco-Management and Audit Scheme (EMAS)Convective heating

European 2002 Energy Performance Directive

**Intelligent Information Flow Management** 

International Energy Agency (IEA) Task 40

Life-cycle-cost (LCC)

Life-Work Heliotrope

**Pulvinus** 

STL rapid prototyping

Sustainable Building Index (SB Index)

(UNEP)

## Chapter 12, page 267

Coefficient of performance (COP) Global warming potential (GWP)

Greenhouse effect

Ozone depletion potential (ODP) Refrigeration efficiency (RE)

## Chapter 13, page 283

Building management system (BMS) Combined heat and power (CHP)

Cost function

Operating constraints

Proportional-integral-derivative (PID)

Supervisory control System model

## Chapter 14, page 301

**Building automation** 

Combined heat compensator (CHC)

Ground source heat pump (GSHP) Indirect evaporative cooling technology

Integrated cooling storage system

Refrigerant-injection

Sequential quadratic programming (SQP)

**Under-compression loss**