Lachmi Khemlani

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Summary

Lachmi Khemlani is the founder and editor of AECbytes (www.aecbytes.com), a publication that has been researching, analyzing, and reviewing technology products and services for the building industry since its establishment in 2003. She also occasionally consults on the development and implementation of AEC technology, authors research reports and white papers, and serves on juries for technology awards.

Lachmi completed her Ph.D. in Architecture at UC Berkeley, specializing in the application of computing technology to the building industry. Her thesis was focused on developing a computational representation of a building that could be analyzed and evaluated, in line with present-day BIM concepts. Her earlier credentials include a professional B.Arch. (Honors) degree from the Indian Institute of Technology, Kharagpur, India, and an M.Phil. in Architecture from the University of Cambridge, England. She worked on several design projects as a practicing architect in India, taught CAD and 3D modeling at UC Berkeley, and authored two editions of a book on a popular 3D modeling application.

In addition to writing in industry publications for several years, Lachmi continues to stay closely involved with the research community by reviewing submissions for the academic journal, Automation in Construction, for which she also has served on the editorial board.

Educational Qualifications

Ph.D. in Architecture
Aug 94 - Dec 00, University of California at Berkeley.

M.Phil. in Architecture
Sep 92 - Aug 93, University of Cambridge, UK.

Honors Diploma in Systems Management *(part-time)*
Aug 91 - July 92, National Institute of Information Technology, Pune, India.

Bachelor of Architecture (Hons.)
July 85 - June 90, Indian Institute of Technology, Kharagpur, India.

Work Experience

Founder and Editor, AECbytes
Nov 03 – current
AECbytes is a publication focused on researching, analyzing, and reviewing technology products and services for the building industry.

Independent Writer
Jan 01 – Dec 05
Books, articles, product reviews, and tutorials in the area of software technology for the AEC (Architecture, Engineering, and Construction) industry.

Instructor
Jan 01 – Aug 02, Department of Architecture, University of California at Berkeley
Courses on 3D modeling and digital design.

Graduate Student Instructor
Aug 94 - Dec 00, Department of Architecture, University of California at Berkeley
Courses on 3D modeling, digital design, computer applications, and programming.

Architect
Jan 94 - July 94, Suryakant Pawar and Associates, Architects & Planners, Pune, India.
Design development and CAD modeling of residential and commercial projects.

Assistant Architect
Jan 91 - March 92, Vishwas Kulkarni, Architect, Pune, India.
Design development, CAD and hand drafting, primarily of apartment building projects.

Junior Architect
Aug 90 - Dec 90, Auroservice D'Auroville, Architects & Planners, Pondicherry, India.
Design development and coordination of working drawings of the township plan for a new "steel city" in Vishakhapatnam, India.

Student Intern
June 89 - Nov 89, Nozer Wadia Associates, Architects & Interior Designers, Bombay, India.
Design development and preparation of working drawings of private beach cottages near Mumbai, India.

Books

form•Z 4: Modeling, Rendering, Animation
McGraw-Hill, November 2003.

Into 3D with form•Z: Modeling, Rendering, Animation
McGraw-Hill, June 1999.

Research Papers

Book Review: Building Product Models by Charles Eastman
Automation in Construction, Vol. 11, No. 4, 2002, Elsevier Science, New York.

Intelligent Representation for Computer-Aided Building Design
Coauthors: Anna Timerman, Beatrice Benne, and Yehuda Kalay
Automation in Construction, Vol. 8, No. 1, 1998, Elsevier Science, New York.

Integrated Model to Support Distributed Collaborative Design of Buildings
Coauthors: Yehuda Kalay and Jin Won Choi
Automation in Construction, Vol. 7, No. 1, 1998, Elsevier Science, New York.

Semantically Rich Building Representation
Coauthors: Anna Timerman, Beatrice Benne, and Yehuda Kalay
ACADIA 97, Cincinnati, Ohio.

Integrated Computing Environment for Collaborative, Multi-Disciplinary Building Design
Coauthor: Yehuda Kalay
CAAD Futures 97, Munich, Germany.

GENWIN: A Generative Tool for Window Design in Energy-Conscious Architecture
Building and Environment, Vol. 30, No. 1, 1995. Pergamon Press, London.

Industry Publications

The Adoption of Project Information Management Software in AEC
White paper for Newforma, August 2015

Facilitating Improved Decision-Making in Early-Stage Building Design
White paper for Dassault Systems, June 2014

Comparison of Bentley ProjectWise and Autodesk Vault for AEC
AECbytes Research Report, Oct 2013

BIM Evaluation Study Report
Research Report for the AIA Large Firm Round Table (LFRT) CEO Committee, June 2010.

Use of Microsoft Technologies to Streamline Processes and Workflows in AEC
White paper for Microsoft, June 2008

Top Criteria for BIM Solutions
Survey and Research Report for Bentley, Oct 2007

Autodesk Revit: Implementation in Practice
White paper for Autodesk, March 2004

Feature Articles. Product Reviews, and Newsletters (weekly)
AECbytes, December 03 – current

Cover Stories, Product Reviews, and biweekly AEC Tech Newsletter
Cadence magazine, April 01 – Oct 03

Autodesk Revit tutorials (monthly)
Autodesk Toplines, February 03 – September 03

Potential and Challenges: Building Information Modeling under the Microscope
AEC Automation Newsletter, November 2003

Autodesk Revit: A Fresh Approach to BIM
AUGIworld, Nov-Dec 2003

Teaching Experience

Computer Applications in Architecture
3D modeling using form•Z, Fall 94 – Spring 02, UC Berkeley

Digital Design
3D modeling using form•Z, architectural rendering using Piranesi, and image compositing using Photoshop
Summer 97 – Summer 02, UC Berkeley

IntelliCAD 2001
Corporate training for Honeywell, Colorado Springs, March 2002

Using Computers in Design Practice: CAD Level II
Advanced AutoCAD 2000, Summer 01, UC Berkeley Extension

Introduction to Computers
Macintosh applications, HTML, and Javascript, Spring 95 – Fall 97, UC Berkeley

Introduction to Computer Technology
Macintosh applications, Summer 94 – Summer 95, UC Berkeley

A.P. Computer Science, Part I
Pascal programming, Summer 94 – Summer 95, UC Berkeley

Invited Talks and Presentations

Building Information Modeling: Past, Present, and Future Perspectives
Presentation at Vanir annual PM/CM Conference, Nov 2011

Comparative Study of Architectural BIM Applications
Presentation to the AIA Large Firm Round Table (LFRT) CEO Committee, April 2010

BIM and Current Trends in AEC Technology
Annual Fall Lecture at Department of Architecture, UC Berkeley, 2003 – 2009

CMiC and Building Information Modeling (BIM)
Presentation at CMiC Connect Conference, Chicago, Sep 2008

Technology Trends, Changes, and Challenges in AEC
Online webinar for Microsoft Professional Services Team, Dec 2007

Building Information Modeling: Revolutionizing Technology and Processes in AEC
Presentation at RSP Architects Project Management Forum, Minneapolis, Sep 2007

Update on BIM and Supporting AEC Technologies
Keynote Presentation at AEC Technology Strategies 2007 Conference, Las Vegas, June 2007

Overview of BIM: Latest Developments, Adoption Status, and Future Trends
Presentation at Ellerbe Becket Principals Retreat, Minneapolis, Oct 2006

Moving from CAD to BIM: Revolutionizing Technology in the Building Industry
Presentation at PBS&J BIM Meeting, Orlando, Sep 2006

From CAD to BIM
Presentation at GCSC Executive BIM Event, Vancouver, June 2006

Latest Technological Developments and Future Trends in AEC Technology
AIA TAP 2006 Conference, June 2006

Building Information Modeling: Opportunities and Challenges
Keynote Presentation at the BIM Symposium, University of Minnesota, February 2006

From CAD to BIM: Revolutionizing Technology in the Building Industry
Keynote Presentation at the Alabama Council AIA Annual Convention, August 2005

Moving from CAD to BIM
Presentation for the Cooper Carry Leadership Group, June 2005

Progress Report on Building Information Modeling
AIA TAP 2005 Conference, June 2005

Multi-disciplinary Building Information Models
Presentation at Bentley's "Build As One" Seminar, December 2004

From CAD to BIM: A State of the Art Report from the AEC Industry
Seminar at the Norwegian University of Science and Technology, November 2004

Building Information Modeling: The Next Step
Presentations to professional AEC audiences in Mumbai and Delhi, India, July 2004

Future Strategies for CAD Software Implementation
Moderator, Panel Discussion at eBIG CAD SIG Conference, November 2003

Digital Building Modeling
AIA TAP 2003 Conference, October 2003

Integrated Building Modeling
Seminar at Carnegie-Mellon University, May 2002

A Space-Structure Building Model
Seminar at Stanford University, February 2002

Semantically Rich Building Representation
Conference presentation at ACADIA, Cincinnati, October 1997

Integrated Computing Environment for Collaborative, Multi-Disciplinary Building Design
Conference presentation at CAAD Futures, Germany, August 1997

Other Industry Engagements

Juror for Bentley's Be Inspired Awards
Nov 2014

Juror for HOK's 2nd Annual BIM Awards
Dec 2011

Juror for the AIA TAP BIM Awards
Aug 2007

Juror for Bentley's BE Awards
Aug 2004

Computer Skills

Software Applications
- CAD applications including AutoCAD, MicroStation, and VectorWorks
- 3D Modeling applications including form•Z and SketchUp
- BIM applications such as Autodesk Revit, ArchiCAD, and Bentley Architecture
- Microsoft Office applications including Word, Excel, PowerPoint, and Outlook
- Graphic Design applications including Adobe Photoshop and Illustrator
- Desktop Publishing applications including Adobe InDesign
- Web Design applications including Adobe Dreamweaver

Programming
- C/C++
- Python
- HTML, CSS, Javascript

Awards and Distinctions

Tuition Waivers
Awarded by the Department of Architecture, University of California at Berkeley, for continued enrolment in the Ph.D. program. Aug 94 - Dec 00.

Certificate of Excellence
Awarded by the Department of Architecture, University of California at Berkeley, for research work produced as a Ph.D. student in the department. May 95.

Cambridge ODA Shared Scholarship
A full scholarship awarded by the Overseas Development Administration, UK, and the Cambridge Commonwealth Trust, to study for the M.Phil. in Architecture degree at the University of Cambridge. Oct 92 - Aug 93.

Gold Medals and Certificates of Excellence
Awarded by the National Institute of Information Technology, Pune, India, for being the top-ranking student all through the program. Sep 92.

Institute Silver Medal and General Proficiency Prize
Awarded by the Indian Institute of Technology, Kharagpur, India for being adjudged the best among the graduating students in Architecture. Aug 90.

Sarat Memorial Prize
Awarded by the Indian Institute of Technology, Kharagpur, India for being adjudged the best woman student among those graduating from all B.Tech.(Hons.) and B.Arch.(Hons.) courses. Aug 90.

Membership of MENSA India
Awarded for scoring a percentile rank of 99+ on an intelligence test. MENSA India is the national chapter of MENSA International, an organization founded in 1946 for members getting a high score on an intelligence test. 1990-91.

National Talent Search Scholarship and Certificate Of Merit
Awarded by the National Talent Search Unit, National Council of Educational Research and Training, India, on the basis of performance in the nationwide Talent Search Examination held in May 1983. July 83 - April 90.