

## ***S. NARAYAN BODAPATI***

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*Professor and Chairman, Department of Construction  
Southern Illinois University Edwardsville*

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### **EDUCATION:**

B.E. (Civil Engineering), 1956  
University of Mysore, Mysore, India

M.Sc. (Design Technology), 1965  
University of Manchester Institute of Science & Technology,  
Manchester, U.K

Ph.D. (Building Technology) 1969  
University of Manchester Institute of Science & Technology,  
Manchester, U.K

**REGISTRATION:** Registered Professional Engineer in the State of Missouri

**CERTIFICATION:** Certified Professional Constructor, American Institute of Constructors

### **AWARDS**

Received the 1996 Outstanding Professional Engineer in Education Award from the St. Louis Chapter of the Missouri Society of Professional Engineers.

Nominated as the Outstanding Teacher in the Department of Construction, Southern Illinois University Edwardsville, 1998-99 and 1999-2000.

Selected by the Dean, School of Engineering as a merit increment faculty member for the years 1998-99 and 1999-2000.

### **HONORS**

Fellow of the American Society of Civil Engineers.

Item Writer for the Fundamentals of Engineering (FE) Examination, National Council of Examiners for Engineering and Surveying, Clemson, SC.

Member of the Editorial Board to the Project Management Institute PM Network Magazine.

Member, American Institute of Constructors (AIC), Constructor Certification Examination Committee. Helped in the development of the Certified Professional Constructor Level I and II examinations.

## **TEACHING/RESEARCH AT SIUE**

**1995 to 2000** Associate Professor, Department of Construction  
Southern Illinois University Edwardsville.

**2000 to Present** Professor and Chairman, Department of Construction  
Southern Illinois University Edwardsville

### **Courses Taught and Developed**

#### *Undergraduate Courses*

#### *Semester*

- CNST 403: Planning and Scheduling Fall 95, Fall 96, Fall 97, Fall 98, Fall 99
- CNST 464: Project Controls Fall 97, Fall 98, Fall 99
- CNST 452: Construction Management Spring 96, Spring 97, Spring 98, Spring 99, Spring 00
- CNST 475: Senior Seminar Spring 96, Spring 97, Spring 98, Spring 99, Spring 00
- CNST 495: Advanced Topics in Construction Summer 96, Summer 97, Summer 99, Summer 00
- CNST 461: Materials Sampling and Testing Spring 97 (Team Taught)

#### *Graduate Courses*

- CE 591: Independent Study Spring 97
- CNST 550: Independent Study Spring 99
- CE 592: Advanced Construction Operations Summer 99
- CE 592: Planning and Scheduling Summer 00

### **External Grants Approved**

1. Instruction Material for the Design-Build Process: Sverdrup Facilities, Inc., St. Louis - \$4,686.
2. Project Scheduling Instruction: Tarlton Corporation, St. Louis - \$1,510.
3. Scheduling Instruction: Booker Associates, St. Louis - \$1,600.
4. Resource Planning and Scheduling Assistance, Arlou Inc., St. Louis - \$3,100.
5. Evaluation of Service Life of Noise Barrier Walls in Illinois with Professor Dianne Kay and Dr. Susan Morgan: Project funded by the Illinois Transportation Research Center - \$93,303.

## **TEACHING EXPERIENCE (PRIOR TO SIUE)**

**1991-1996     Adjunct Professor and Assistant Program Coordinator  
Master of Construction Management Program  
Department of Civil Engineering  
Washington University in St. Louis, MO**

While at Washington University, I team-taught the following construction management courses at both graduate and undergraduate levels. I was responsible for the successful introduction of two new courses in the graduate curriculum and a construction track alternative in the Civil Engineering Bachelor's Degree Program. I received highly positive evaluations on my teaching effectiveness from the students.

### **Courses Taught**

- CE 573: Construction Operations and Management
- CE 574: Construction Estimating, Scheduling and Subcontracting
- CE 575: Construction Internship
- CE 579: Advanced Construction Operations
- CE 580: Computer Applications in Construction

### **Program Coordination**

- Intern Placement
- Curriculum Review
- Coordination of Seminar Speakers
- Advisory Committee Coordination

**1970-71     Visiting Assistant Professor  
Environmental Systems Studies  
College of Architecture  
Virginia Polytechnic Institute and State University  
Blacksburg, VA**

As visiting professor, I taught for one academic year various courses at both graduate and undergraduate levels.

### **Courses Taught**

- Industrialized Building Systems
- Design Methodology
- Building Process

## **RECENT PUBLICATIONS AND PRESENTATIONS**

“Procedures/Guidelines Followed When Underground Storage Tanks are Discovered During Construction,” with Carolyn Edwards. Presented at the Associated Schools of Construction International Annual Conference, Purdue University, West Lafayette, Indiana, Mar 29 – April 1, 2000. Also published in the Proceedings of the 36<sup>th</sup> Annual Conference. **(refereed)**

“Graduate Education in Construction: An MBA/Construction Model,” with Dianne H. Kay and Luke M. Snell. Presented at the Associated Schools of Construction International Annual Conference, Purdue University, West Lafayette, Indiana, Mar 29 – April 1, 2000. Also published in the Proceedings of the 36<sup>th</sup> Annual Conference. **(refereed)**

“Procedures/Guidelines Followed When Underground Storage Tanks are Discovered During Construction,” with Carolyn Edwards. Presented at the Associated Schools of Construction Regional Meeting, Southern Illinois University Edwardsville, Illinois, November 5-6, 1999. Also published in the Conference Proceedings. **(non-refereed)**

“Graduate Education in Construction: An MBA/Construction Model,” with Dianne H. Kay and Luke M. Snell. Presented at the Associated Schools of Construction Regional Meeting, Southern Illinois University Edwardsville, Illinois, November 5-6, 1999. Also published in the Conference Proceedings. **(non-refereed)**

“A Perspective on the Image of the Construction Industry,” with Dawn M. Naney. Presented at the Associated Schools of Construction Regional Meeting, Southern Illinois University Edwardsville, Illinois, November 5-6, 1999. Also published in the Conference Proceedings. **(non-refereed)**

“Evaluation of Service Life of Noise Barrier Walls in Illinois with Prof. Dianne Kay and Dr. Susan Morgan: Project funded by the Illinois Transportation Research Center.  
Date of Publication: November 1999. **(refereed)**

“ Impact of Project Delivery Process on the Cost and Schedule of K-12 Educational Facilities: Research in Progress, ” presented at the Associated Schools of Construction National Conference, California Polytechnic State University, San Luis Obispo, California, April 7-10, 1999 (also published in the Conference Proceedings).

“ International Construction Employment: Challenges and Opportunities for Construction Graduates,” with Dianne H. Kay (revised), Journal of Construction Education, 1999, Volume III, Number 2, pp. 119-127. **(refereed)**

“Applying CPM Techniques to Delay Analysis,” presented at the Associated Schools of Construction, Region III Meeting, Indiana State University, Terre Haute, Indiana, November 5-6, 1998 (also published in the Conference Proceedings).

“ A Study of Service Life of Highway Noise Barriers in Illinois” with Dianne H. Kay and Susan Morgan, presented at the Transportation Research Board Committee A1F04 Summer Meeting, St. Petersburg, Florida, July 12-15, 1998 (also published in the proceedings).

“A Designer’s Perspective of a Concrete Construction Schedule” with Luke M. Snell, Concrete International, July 1998, Volume 20, Number 7, pp. 42-45. **(refereed)**

“International Construction Employment: Challenges and Opportunities for Construction Graduates,” with Dianne H. Kay, presented at the Associated Schools of Construction National Conference, Portland, Maine, April 15-18, 1998 (also published in the Conference Proceedings). **(refereed)**

“A Study of Highway Noise Barriers in Illinois: A Report of Research in Progress,” with Dianne H. Kay and Susan Morgan, presented at the Associated Schools of Construction National Conference, Portland, Maine, April 15-18, 1998 (also published in the Conference Proceedings).

“Integrating the Discovery Method of Learning Into the Construction Program,” with Luke M. Snell, ASEE Illinois/Indiana Sectional Conference, Southern Illinois University, Carbondale, Illinois, March 26-27, 1998 (also published in the Conference Proceedings). **(reviewed)**

“Guidelines for Review of Contractor-Submitted Schedules,” The Construction Specifier, February 1998, Volume 51, Number 2, pp. 57-62. **(reviewed)**

“A Study of Highway Noise Barriers in Illinois: A Report of Research in Progress,” with Dianne H. Kay and Susan Morgan, presented at the Associated Schools of Construction Great Lakes Regional Conference, Michigan State University, Lansing, Michigan, November 7-8, 1997 (also published in the Conference Proceedings).

“International Construction Employment: Challenges and Opportunities for Construction Graduates,” with Dianne H. Kay, presented at the Associated School of Construction Great Lakes Regional Conference, Michigan State University, Lansing, Michigan, November 7-8, 1997 (also published in the Conference Proceedings).

“Perspective on the Construction Industry”, The American Institute of Constructors Newsletter, December/January, 1997, Volume XXV, Number 6, pp.1-4.

“Construction Manager Review of Contractor Submitted Schedules” presented at the Associated Schools of Construction Great Lakes Regional Conference, Illinois State University, Normal, Illinois, November 1-2, 1996 (also published in the Conference Proceedings).

“Preparing for the ASC Regional Student Competition”, with Ken Cates and Luke Snell, ASC Regional Meeting, Illinois State University, Normal, Illinois, November 1-2, 1996 (also published in the Conference Proceedings).

## **RESEARCH PUBLICATIONS AND ACTIVITIES (PRIOR TO SIUE)**

## **PUBLICATIONS/REPORTS**

“Managing Airport Projects”, Military Engineer, February-March 1995, Volume 87, Number 569, pp. 39-41. **(reviewed)**

“Streamlining Modern Airport Projects”, Construction Business Review, with D. Cornell, November/December 1993, Volume 3, Number 6, pp. 74-77. **(reviewed)**

“Scott Joint-Use Airport On Time-On Budget,” Primavera Network, with D. Cornell, August 1993.

"Component Interchangeability," The Construction Industry Handbook, 1971, pp. 181-185, Medical and Technical Publishing Co., Aylesbury, Bucks, England. **(refereed)**

"Study of the Building Timetable" Fifth Progress Report," Volumes I, II and III, July 1970, with T.P. O'Brien, M. Orthwein, and I. B. Stilitz.

“Measuring Instruments for Large Precast Components,” Concrete with R. A. Burgess, December 1969, Volume 13, Number 12, pp. 488-493. **(refereed)**

“Measurement of Dimensional Deviations of Large Precast Concrete Wall Units,” April 1969, Ph.D. Thesis submitted to the University of Manchester, Manchester, U.K.

"Dimensional Accuracy in Systems Building: A Synthesis of Present Thinking," Industrialized Building Systems and Components, with R. A. Burgess, October, 1967, Volume 4, Number 10, pp. 80-89.

“On the Effect of Stimulus Intensity on Visual Choice Reaction Times,” October 1966, M.Sc. Dissertation submitted to the University of Manchester, Manchester, U.K.

## **RESEARCH ACTIVITIES**

**1971-73** Staff Engineer, Building Research Advisory Board, National Academy of Sciences, Washington, D. C.  
I provided project coordination on: (1) The Subsystem Concept of Building, (2) Systems Approach to Fire Safety in Buildings, and (3) The Federal Construction Guide Specifications.

**1969-70** Research Assistant, School of Environmental Studies, University College, London, U.K. Research sponsored by the Ministry of Public Building and Works, U.K.  
As a member of the research team, I established equations to predict statistically the durations of various activities in the building process timetable.

**1966-69** Research Assistant, and Ph.D. Candidate, University of Manchester Institute of Science & Technology, Manchester, U.K. Research study sponsored by the Building Research Station, U.K.  
I conducted research on the dimensional accuracy of precast concrete units in system building.

## **PROFESSIONAL EXPERIENCE**

**1973 to 1995** Project Control Engineer/Manager, Sverdrup Corporation, St. Louis, MO

### **Specialized Experience**

- Establishing Project Control Systems for Large Projects
- Project Time Optimization Studies; Constructibility Analysis
- Contract Administration/Project Coordination
- Case Study Analysis of Projects
- Research/Teaching in Construction Management

### **Representative Project Assignments**

- Scott Air Force Base, Joint-Use Airport, Belleville, IL – As Project Control Engineer, I developed and maintained an integrated master schedule for the Joint-Use Airport incorporating complex permitting requirements and client activities. I performed constructibility studies on the runway contracts and assisted with the contract administration of design contracts.
- MetroLink Light Rail Project, St. Louis, MO – As Project Control Engineer, I developed and maintained a global project schedule integrating the design, procurement, real estate, construction, testing and revenue operations. I was responsible for developing a fast-track schedule for accelerated construction of the collapsed tunnel portion. I also assisted with the change order management, and analysis of delays and claims. The project won national and local awards.
- Capital Construction Program, Long Island Railroad, New York, NY – As Staff Engineer, my duties included contract administration, design coordination, change order review and processing, contractor progress payments, and construction progress monitoring.
- Lone Star Industries Cement Plant at Santa Cruz, CA – As Assistant Project Manager, I developed schedules for design, procurement and construction. I was also responsible for monitoring project costs and progress, and prepared monthly progress reports.
- Sonatrach, Haoud El Hamra-Skikda, Algeria: Crude Oil Pipeline, Pumping Stations and Storage Tank Terminal – As Project Scheduler, I provided schedule coordination and CPM network preparation and analysis.

- 1965** Firma Imbau, Neu-Ulm, Germany. As Structural Designer, I designed precast concrete components for prefabricated structures.
- 1963-64** Engineer Section, U.S. Army Sp. Troops, USAREUR, Heidelberg, Germany. As General Engineer, I prepared specifications and cost estimates for various types of Army engineering projects.
- 1962-63** Firma Prof. Dr. Ing. H. Beck, Consulting Civil and Structural Engineer, Frankfurt/Main, Germany. As Structural Engineer, I performed structural design of multistory structures.
- 1960-62** Assistant Engineer (Civil), National Coal Development Corporation, Ranchi, India. As Construction Engineer, I oversaw construction for colliery residential buildings, heavy-duty haul roads, and concrete coal storage bunker.
- 1956-60** Dams Directorate, Central Water and Power Commission, New Delhi, India. As Design Assistant, I was responsible for checking the stability of power dam profiles, design of penstocks, and trashrack structures.

### **PROFESSIONAL ASSOCIATIONS**

Member, Constructor Certification Examination Committee,  
American Institute of Constructors

Certified Professional Constructor, American Institute of Constructors

Member, Missouri Society of Professional Engineers  
Chairman, Committee on Professional Engineers in Education, St. Louis Chapter

Fellow, American Society of Civil Engineers

Member, American Association of Cost Engineers

Member, Society of German Engineers (VDI), Germany

Individual Member, International Council for Building Research Studies and Documentation,  
CIB, Netherlands

Associate Member, Chartered Institute of Building, United Kingdom