



Annual Report

Executive Summary

2004-2005

College of Architecture

Georgia Institute of Technology

Prepared by

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and
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EXECUTIVE SUMMARY
2004-2005 ANNUAL REPORT OF THE COLLEGE OF ARCHITECTURE
GEORGIA INSTITUTE OF TECHNOLOGY

Distilled from the College's Annual Report, this summary highlights the College's accomplishments of the past year: changes in student enrollment; college and program review/national rankings; international program activities; continuing education; alumni cultivation and developmental advances; and information technology resources. This summary also documents our affirmative action recruitment steps and plans; significant program accomplishments in Architecture, Building Construction, City and Regional Planning, Industrial Design, Music, and the Ph.D. Program, and the Architecture Library; the distinguished honors of our faculty and staff; progress made in the College's research and creative activities by the faculty and the College's six research centers (Center for Assistive Technology and Environmental Access (CATEA), Construction Research Center (CRC), Center for Geographic Information Systems (CGIS), Center for Quality Growth and Regional Development (CQGRD), Advanced Wood Products Laboratory (AWPL), and the Imagine Lab); and progress made in our outreach initiatives and progress in institutional planning.

College-wide accomplishments include the following:

- The College appointed Professor Abir Mullick as the new Director of the Industrial Design Program. Professor Mullick served as Associate Professor at the State University of New York, Buffalo. He is widely known for his pioneering work in Universal Design and brings to Georgia Tech a substantial program of funded research in the area.
- The College appointed Dr. Dan Immergluck (Ph.D., University of Illinois, Chicago) as an Associate Professor and Drs. Brian Stone and Jiawen Yang as Assistant Professors in the City and Regional Planning Program. Prior to coming to Georgia Tech, Dr. Immergluck served as an Assistant Professor at Grand Valley State University and Dr. Stone served as an Assistant Professor at the University of Wisconsin, Madison. Jiawen Yang received his doctorate from MIT. Dr. Benjamin Flowers, (Ph.D., University of Minnesota) will join the faculty in the Architecture Program as an Assistant Professor. In the Department of Music, the College appointed Jason Freeman, (Ph.D., Columbia University), Parag Chordia, (Ph.D., Stanford University), and Donald Allen (Ph.D., University of Memphis), as Visiting Assistant Professors. Dr. Ellen Do will join the faculty in the Ph.D. Program in January 2006 as an Associate Professor with tenure. Dr. Do received her doctorate from Georgia Tech. She served as an assistant, then associate professor with tenure at the University of Washington and as an Associate Professor at Carnegie-Mellon University. Dr. Do will hold a joint appointment with the College of Computing.
- Monica Ponce de Leon, the Thomas W. Ventulett, III Distinguished Chair in Architectural Design, began her inaugural appointment with her design studios exploring digital manufacturing in conjunction with the Advanced Wood Products Laboratory. In June, Professor Ponce de Leon accepted an offer of Professor with Tenure at Harvard University. The work begun under her direction last year will be continued next year under the direction of Nader Tehrani, a partner with Professor Ponce de Leon in the award winning firm of Office dA, Boston. A search committee will be formed for Professor Ponce de Leon's replacement.
- Dr. Frank Clark, Professor and Director of the Department of Music, was awarded tenure.
- Dr. Stephen Sprigle, Director of CATEA and Associate Professor in the Industrial Design Program, was awarded tenure.

- Dr. Elizabeth M. Dowling was promoted to the rank of Professor.
- Gregory Saldana, architect in Miami and Boston, served as the Harrison Visiting Professor in Spring 2005.
- The Planning Accreditation Board extended a full six year accreditation term to the graduate program in City and Regional Planning.
- Associate Professor and Associate Dean, Sabir Khan, was elected Treasurer of the Association of Collegiate Schools of Architecture.
- In February, the College hosted two symposia. The morning symposium, “Architecture and Memory,” brought together six scholars from across the United States and Europe to discuss the Monument and the Memorial as a social, political, and material construction. In the afternoon, the Dean’s Symposium on the Changing Nature of Practice featured Dr. James Young, author of *The Texture of Memory* and a member of the jury that selected the design by Michael Arad (M.Arch 99) from among 5,120 entries Dr. Young was followed by Mr. Arad who presented his design for the World Trade Center Memorial in New York. The symposia drew a combined audience of over 280 participants.
- In the spring semester of 2005, Drs. Catherine Ross and Cheryl Contant led an eleven-member group of master’s and doctoral students sponsored by the College to Madrid, Spain to participate in the International Planning Charrette at the Fundacion Metropoli. Together with a group of students from the University of Pennsylvania’s City and Regional Planning department, our students explored the concept of “supercities” and European spatial planning approaches intensively for one week. They also gave two public presentations on their work on the southeastern U.S. “supercity”, called the “Piedmont Atlantic Megalopolis”.
- The College maintained its strong record of externally funded research through its instructional programs and research centers. This past year, new contract awards were 8.66 million dollars, slightly down from the previous year’s all-time high of 8.89 million dollars.
- The College's international programs in Paris, France; Summer Study Abroad Programs in Holland-Paris-Berlin; and in Italy continued to be strengthened. The Architecture Program will be among the initial participants in the new International Plan initiative begun by the Institute. In AY 2004-05, 123 students from the College of Architecture participated in a study abroad experience, either through one of the College’s programs or through another program offered at Georgia Tech. Among degree recipients, 47.8% participated in a study abroad program while enrolled at Georgia Tech.

Enrollment and Degrees Awarded: The College experienced a surge in enrollment in the fall of 2004. Student enrollment in the Common First Year increased to 280, a 38.2% increase over fall of the previous year. In the College as a whole, undergraduate enrollment increased by 13.3% to 737 students and graduate enrollment increased 6.3% to 352 students, bringing enrollment in the College to an all time high of 1089 students. This continues a long term trend of steady growth. Over the past five years, student enrollment in the College has increased by 26.6%. This substantial and continuous growth in enrollment has placed the physical facilities of the College at maximum capacity. In the past year, the College awarded 136 baccalaureate degrees, 115 master’s degrees, and seven Ph.D. degrees.

Diversity: Although the College has made substantial strides in increasing the diversity of its faculty over the past five years, the attrition of several faculty and staff over the same period has kept the composition of the faculty close to the previous year. The faculty is now composed of 4.6% African-

American professors and 34% women. Although the College compares well nationally with these percentages, the need to continue efforts to increase the diversity of its faculty and staff in future appointments continues. Minority student enrollment decreased slightly by 1.0%. Ethnic minorities now account for 26.8 % of the total student population within the College of Architecture. Graduate enrollment increased to 352 students, 41.2% of whom are female. Of the 737 undergraduates in the College of Architecture, 43.8% or 323 students are female, only .01 % difference from the previous year. Goals for the coming year include increasing the College's participation rate in the FOCUS program, re-energizing the College Diversity Committee, and undertaking a strategic assessment of our diversity efforts.

The accomplishments of the individual programs of the College over the past year were several:

- **Architecture:** This year, the Architecture Program enrollment remained stable at the graduate level with continuing increases in undergraduate enrollment. In the Fall of 2004, 352 undergraduate Architecture majors were enrolled, an increase of 13.5% over the year before. This represents a 27.5% increase over the past two years. The Architecture Program faculty maintained an exceptionally high level of scholarly activity, collectively producing three books, two book chapters, three invited articles in national publications, two encyclopedia entries, five articles in refereed archival journals, thirteen refereed conference proceedings, and twenty-eight conference presentations without proceedings. Six faculty members gave keynote or invited lectures and collectively, the Architecture Program faculty was cited in four books and eleven national journals. In addition, the Architecture Program faculty won one local, two regional, and three national design awards. Professor Libero Andreotti, Resident Director of the Paris Program, mounted an exhibit titled "Dérives Urbaines". The exhibition displayed the work of students in the "Atelier Franco- Americain at the Galerie de La Villette, in Paris. Ellen Dunham-Jones, Associate Professor and Director of the Architecture Program along with Dean Galloway was named to the Design Intelligence Honor Roll in Fall 2004, as one of the top thirty national leaders for bridging academia and practice in the profession. In addition to delivering a lecture titled, "Improving the Urban Landscape," at the United Nations' World Urban Forum 2 held in Barcelona, Spain, Professor Dunham-Jones also delivered an invited lecture on "Sustainable (New) Urbanism" at the Asia Design Forum in Kuala Lumpur, Malaysia. Dr. Elizabeth M. Dowling delivered an invited lecture, "New Classicism," to the Institute of Classical Architecture/Classical America in New York. Individual faculty members were also recognized by several prestigious awards. Professor and Ventulett Chair in Architecture, Monica Ponce de Leon, received a national Design Citation in Architecture from the 52nd Annual Progressive Architecture Awards and a "Charter Award for New Urbanism", from the Congress for the New Urbanism, for the Intergenerational Learning Center in Chicago. Associate Professor Jude LeBlanc and Assistant Professor Michael Gamble won an EDRA/Places Research Award for their research on "Incremental Urbanism." Professor LeBlanc also won an ACSA National Design Award (one of four nationwide) for The Ellis House in the Bahamas. Mark Cottle received a Residential Design Award from the Georgia Chapter of the AIA for the built project: "Shelf Life: Hanover House 10-B". Part-time Professor Michael Kleeman, won an Atlanta Urban Design Commission Award with Jones Pierce Architects for the Whyte-Pierce Residence. Part-time Professor and alumnus David Green's firm, Brock + Green Architects, a recipient of the 2004 Silver Medal from the Atlanta Chapter of the AIA for its consistently high quality work and contributions to the profession, merged with Lord, Aeck, and Sargent in 2005. Individual faculty members were also elected to national offices of professional and academic societies. Associate Dean Sabir Khan was elected Treasurer of the Association of Collegiate Schools of Architecture (ACSA), Dr. Robert Craig was elected President of the Nineteenth Century Studies Association (NCSA) and re-elected Secretary of the Society of Architectural Historians (SAH). Professor Dunham-Jones continued her service as a board member of the Congress for the New Urbanism and was appointed to the editorial board of *Places* magazine. Dr. Elizabeth M. Dowling was appointed to the Board of Advisors of The Institute of Classical

Architecture/Classical America. Architecture Program faculty, working with colleagues in the PhD program, were also active in securing external funding for their research. As either PI or Co-PI, seven faculty members in the Architecture Program secured external funding totaling \$1,067,304.00, distributed across fourteen projects. Students in the Architecture Program also were recognized for their accomplishments. Jack Sawyer and Tristan al Haddad, two students in the M.Arch Program placed in national design competitions. An interdisciplinary team of Architecture, City and Regional Planning, and Master of Business Administration students won an Honorable Mention in the national Urban Land Institute/Hines competition. Three of the winning team members were M.Arch students, Jimmy Amichandwala, Huzefa Rangwala, and Jeff Williams.

- **Building Construction:** Enrollment in the Building Construction Program continued to increase. Undergraduate enrollment increased from 139 to 164, an 18% increase over the year before. At the graduate level, The M.S. BC Program increased 6.8% to 63 students. Altogether, this represents a doubling of enrollment in the last five years. The BC Program received approval from the Board of Regents for a Distance Learning Master of Science degree program in Facility Management. The study abroad initiative, based in Paris completed its second successful year. Started in the summer semester of 2004, with an enrollment of 15 students, the program expanded in 2005 and will allow Architecture Program majors to earn a certificate in Building Construction. The BC Program continued its outreach and marketing program with industry professionals, culminating with an undergraduate career day. This year, thirty-six companies participated in interviews with BC students. This past year, fifteen scholarships, totaling \$25,000, were provided to BC students. The BC faculty published six technical reports and delivered eleven invited lectures to national and international audiences. The BC faculty served in the following professional societies: Associated Builders and Contractors (ABC) Association, International Facility Management Association (IFMA) National Educator's Council, Building Owners and Managers Association (BOMA) Atlanta Chapter Executive Facility Management Committee, CERF's Highway Innovative Technology Evaluation Center (HITEC), American Society of Civil Engineers (ASCE), CIB Building Future Studies (W82), and the Society of American Military Engineers (SAME). Individual faculty were active in professional societies. Assistant Professor Kathy Roper received the 2004 International Facility Management Association for Facility Management in Higher Education award from IFMA. Dr. Rita Oberle was invited to address the Society of American Military Engineers conference in Fall 2004.
- **City and Regional Planning:** In Fall 2004, the City and Regional Planning Program enrolled 83 students in its master's degree program and 14 students in the City and Regional Planning doctoral studies field. This resulted in a total of 97 graduate students who were served by a teaching faculty full-time equivalent of 6.5. The Program's students are both diverse and of extremely high quality (as measured by quantitative measures such as GPA and GRE scores). Overall, minority student enrollment decreased slightly from the previous year. Students of color represent 16% of the Program's current U.S. student body (13 of 79 U.S. students). The percentage of African-American students decreased substantially from 14% to 7%, with all other percentages remaining relatively constant from previous years. The proportion of women increased to almost 50%, reflecting an increase in enrollment of women students in this past year's entering class. The City and Regional Planning Program awarded 35 MCRP degrees in 2004-05. The Program's faculty has maintained an exceptionally high level of funded research, publications, and community outreach efforts. In total, its 8 faculty members published 8 refereed journal articles, 8 professional reports, and 1 chapter in an edited book. Faculty members also have five articles in review at various journals and over a dozen more in various stages of preparation. Faculty members made presentations at dozens of national conferences and international conferences, including several plenary or keynote presentations. Faculty members are currently working on 21 different funded research projects, including 9 ongoing or renewed projects and 12 new research projects over the past year. These new projects translate into a total of \$403,000 and just over \$2 million in ongoing research projects. City and Regional Planning faculty members remain

critical and important resources to local, regional, and national agencies and are active in service, both to the profession and the community at large. Dr. David Sawicki continues his second year as editor of the *Journal of the American Planning Association*. This is recognized as the most distinguished journal in the field. In addition, four of our faculty members currently serve on the editorial boards of key planning journals. Faculty members were also manuscript reviewers for 11 peer-reviewed academic and professional journals. In the 2005 spring semester, Drs. Catherine Ross and Cheryl Contant led an eleven-member group of master's and doctoral students to Madrid, Spain to participate in the International Planning Charrette at the Fundacion Metropoli. Together with a group of students from the University of Pennsylvania's City and Regional Planning Department, our students explored the concept of "supercities" and European spatial planning approaches intensively for one week. They gave two public presentations on their work on the southeastern U.S. "Supercity", named the Piedmont Atlantic Megalopolis. Three sets of students received extremely competitive national awards. One team of students received an honorable mention for their concept and design in the Urban Land Institute National Urban Design award competition. One of the Program's doctoral students won an award from the American Planning Association Transportation Division for an outstanding paper. Erica Betts, a master's degree candidate, was selected in a national competition as the recipient of the Community Planning Internship with the Federal Emergency Management Agency (FEMA) and the U.S. Environmental Protection Agency (EPA). Finally, the Planning Accreditation Board made its site visit for the re-accreditation of the Program. In the Final Site Visit Report, the Program fully met all accreditation criteria for assessment. This "perfect score" is an extremely unusual outcome of a site visit and one which the City and Regional Planning Program is extremely proud.

Industrial Design: The undergraduate degree program in the Industrial Design Program received accreditation from the National Association of Schools in Art and Design (NASAD). Enrollment in the Program remained stable overall. At the undergraduate level, enrollment decreased from 190 to 175, and at the graduate level, enrollment increased from 9 to 18. The Program awarded 49 baccalaureate degrees and seven Master of Industrial Design degrees. Associate Professor Wayne Chung served admirably as Interim Director, while an international search for a new Director of the Industrial Design Program was underway. The search was concluded in May with the appointment of Professor Abir Mullick from the State University of New York, Buffalo. Professor Mullick holds advanced degrees in both Industrial Design and City and Regional Planning, taught in SUNY's architecture program, and is well known for his research in Universal Design. His background fits extremely well with the Industrial Design Program, the Center for Assistive Technology and Environmental Access, and the College of Architecture as a whole. Faculty in Industrial Design published six articles in refereed archival journals, five refereed conference proceedings, and delivered nine conference papers without proceedings. Associate Professor and Interim Director, Wayne Chung was elected as an officer of the Atlanta Chapter of the Industrial Design Society of America. Student Kurt Rampton won a National IDSA Merit Award and was elected to represent Georgia Tech ID Program at the Industrial Design Society of America conference. Strong relationships with the College's Research Centers, CATEA and AWPL continue in several areas. David Ringholz continues work on his Rehabilitation Engineering Research Center (RERC) Work Place Accommodation grant with CATEA. Wayne Chung is part of a potential Universal Design grant for 2005-2006. Dr. Stephen Sprigle and Randy Bernard from CATEA continue to teach in the ID Program. With the sponsoring of three AWPL courses by Alan Harp, the Georgia Tech ID Program was represented at the Museum of Design Atlanta and several wood product and furniture exhibitions throughout the Southern Region.

- **Ph.D. Program:** As of Fall 2004, the Ph.D. Program had 76 active Ph.D. students. The total number of applications was seventy-five, an increase of 14 over the previous year. This trend shows an increase in US and Korean applicants. Last year's significant drop in Chinese applicants continued. In general, the foreign students are widely diverse. The program has accepted 24 of the 75 applicants

with an expected enrollment of 14 additional students. The overall quality of students and the acceptance rate of those admitted grew. This class continues the upward trend in quality and diversity. Program faculty continued their strong record of scholarship with the publication of two books, 20 refereed journal articles and 52 papers in published proceedings. This is twice the publication rate of the previous year. Students in the Ph.D. Program were also active, publishing 15 papers in refereed journals and 20 additional conference presentations with proceedings. After a drop in 2003-2004, faculty research, as measured by funding, increased to \$1.1 million. This more than doubled the previous year's total. Faculty maintained a national and international presence through service on a total of 16 editorial boards of professional and academic journals. Students in the Ph.D. Program published eight refereed papers and made 44 conference presentations. Finally, Dean Galloway, Professor Eastman, Professor Kangari, Professor Linda Thomas-Mobley and Dr. Ghang Lee, organized a conference and published refereed conference proceedings for doctoral students in U.S. research universities on "The Future of the Architecture, Engineering and Construction Industry" as a part of the annual conference of the Building Futures Council held in Las Vegas.

- **Department of Music:** The Department of Music increased its course offerings with four additional courses at the undergraduate level and four new graduate level courses in Music Technology. This represents the first graduate level courses in Music at Georgia Tech. The Music Faculty was increasingly active in publishing and scholarly activities. Faculty gave five invited performances, wrote two refereed papers and three non-refereed journal articles, published three refereed conference proceedings, and engaged in one research project. Music faculty members were recognized with honors and awards. Dr. Jerry Ulrich was selected for the American Society of Composers, Authors & Publishers (ASCAP) award for compositions/publications. Dr. Andrea Strauss was recognized by the Women Band Directors National Association (WBDNA) for outstanding contribution to the field of instrumental music education and was selected to serve as conductor of the California Jr. High School Concert Band. In addition, Professor Ron Mendola had three arrangements/orchestrations for brass quintet published by Timber Ridge Music in January 2005, and Dr. Ulrich had five choral works accepted for publication. Faculty members continue to serve in leadership roles in professional organizations. Professor Chris Moore was elected Vice-President of the Georgia Chapter of the Percussive Arts Society; Dr. Andrea Strauss served as Music Education Research Chair for grant proposals for the National Band Association. Dr. Jerry Ulrich was appointed Music Director for the first annual *Dornoch Choral Festival* in Dornoch Scotland, featuring a performance of the Faure *Requiem* with chorus and professional orchestra in Dornoch Cathedral, Simon Carrington, Conductor. He also was a licensed adjudicator for the International Championship of Collegiate A Cappella Organizations (2004)

Research: The College of Architecture experienced a slight decrease in contract awards from the previous year's total of \$8.89 million. New contract awards for 2004-2005 decreased to \$8.66 million. While this is the first decrease experienced in a decade, the level of new contracts remained at a very high level with more faculty engaged in research than ever before. The number of awards increased from 51 to 57.

- **Advanced Wood Products Laboratory (AWPL):** Most significant among the activities of the AWPL in 2004-2005 was the expansion of the academic mission of the College with the research, training, and application mission of the AWPL. The past year saw the introduction of "The Design of Digital Manufacturing" courses (Arch 4832 / 8832) taught by Professor Monica Ponce de Leon, the Thomas W. Ventulett III Distinguished Chair in Architectural Design. These courses in the Fall and Spring semesters involved 18 students. Five team projects were developed using CNC machine centers at the AWPL for exhibition at the College of Architecture in Spring 2005. In addition, the AWPL supported three Industrial Design courses, including "Furniture Design and Manufacturing" and one section of "Advanced Furniture Design and Manufacturing". The AWPL also supported

Professor Tina Simonton's "Architecture Furniture Design Theory" class through the provision of a two-week AlphaCAM workshop. This involved 18 students from the Architecture Program under the direction of Professor Tina Simonton. Additional support was provided for Architecture and Industrial Design students for self-directed projects and support of related class projects from graduate and senior level students for both semesters, utilizing computer numerical control (CNC) machine centers and equipment. The products of the classes were exhibited at the International Wood Fair, at the Museum of Design in Atlanta, and at an exhibition at the National Meeting of the Furniture Society in San Diego, California. Students also entered eleven projects at the Association of Woodworking and Furnishings Suppliers (AWFS) 2005 Design Competition in Las Vegas, Nevada. Four student projects reached final competition level. The AWPL was named "Educator of the Year" by the Woodworking Machinery Industry Association. The AWPL Continuing Education Program conducted fifty (50) workshops with 188 industry trainees in 2004-2005. This represents an increase of 16 % over the previous year. Revenue generated from these workshops totaled \$172,000, a 21% increase. New training workshops were introduced for Planit Systems of Grand Rapids, Michigan and Charlotte, North Carolina.

- **Center for Assistive Technology and Environmental Access (CATEA):** CATEA remains a very active organization that maintains a position of international and national leadership in the areas of disability and rehabilitation research. The past year placed CATEA in the middle of a two-year transitional period that will result in CATEA operating as an inter-disciplinary academic center within the College of Architecture. Significant effort has been spent on establishing an administrative and information technology infrastructure that is more integrated with the respective units of the College. Activities over the next year will focus on completion of this transition period. As a result of this transition, CATEA will be smaller in staffing, more focused in its research thrusts and will operate much more like an academic-based Center than in past years. In the past academic year, CATEA faculty and research personnel taught five courses in both the College of Architecture and in the School of Applied Physiology in the College of Sciences. In addition to course offerings, CATEA Director, Dr. Stephen Sprigle, advised two Ph.D. students in Industrial Design, six MS students in Prosthetics & Orthotics, and one MS student in Bioengineering. Randy Bernard, advised one Master of Industrial Design student. CATEA faculty and research personnel also published four articles in archival refereed journals. The Georgia Tech Research on Accessible Distance Education (GRADE) project won the Institute's Best Practices Award for 2005. Despite the reduction in staff, CATEA was awarded nine new research contracts totaling \$5.6 million dollars. Among these, two new federal grants were awarded bringing CATEA's total sponsored project budget to \$7.1 million dollars. Eleven proposals were submitted that are still pending or outstanding. CATEA's outreach services continued to be a leader in dissemination and technical assistance regarding disability, assistive technology, environmental access and the Americans with Disabilities Act (ADA). CATEA's web presence remains impressive with 12,158,761 hits and 690,895 visits. CATEA continued a strong record of outreach and professional service. Faculty and research personnel served on seven Standards Committees and four editorial boards. CATEA personnel also reviewed six manuscripts for publication and served as grant reviewers for four agencies, including the National Institute of Health (NIH) and the National Science Foundation (NSF).
- **Construction Resource Center (CRC):** The Construction Resource Center continued its efforts to forge partnerships between industry and the university community in exchanging intellectual capital while generating benefits for society that respond to the delivery of sustainable, cost-effective facilities and infrastructure. Assistant Professor Kathy Roper, representing CRC, established an interdisciplinary initiative by participating at the Workplace Transformation Roundtable in conjunction with Dr. Bill Rouse and the Tennenbaum Institute for senior corporate real estate executives and developers on November 22, 2004. Funding for the Roundtable came from the Tennenbaum Institute and expected results will be published in internal and refereed journals. This is

the first in an ongoing relationship with the Tennenbaum Institute and the graduate Integrated Facility and Property Management Program. As part of CRC's joint research work with the Civil Engineering School, Dr. Rita Oberle graduated two Ph.D. joint program students with the School of Civil and Environmental Engineering. Ph.D. students, supported by CRC, attended the American Society of Heating, Refrigeration and Air conditioning Engineers (ASHRAE) AHR Expo 2005, XML Symposium in Orlando. The CRC also supported eight Ph.D. students, including participation in Automated Buildings (CABA), Intelligent & Integrated Buildings Council Roundtable in 2005. Faculty in the CRC received five new research grants, totaling \$116,000. Faculty published eight refereed archival journal articles, delivered three keynote addresses at national and international conferences, published three refereed conference papers, and delivered four professional reports.

- **Center for Geographic Information Systems (GIS):** This year the Center for Geographic Information Systems significantly improved its reputation as a center of excellence in the spatial sciences. GIS Center personnel are widely recognized for their technical excellence. As a result, Center staff members are routinely invited to participate in cutting-edge research projects at Georgia Tech and across the country. The Center's GIS expertise enables the Institute to compete for a wide variety of research projects that would not otherwise be possible. The Center is also a significant asset to the College and the Institute in recruiting outstanding faculty and graduate students. Increasingly the Center is also being recognized as an important teaching resource. There is strong demand for additional courses and additional sections of existing courses from the Ivan Allen College and the College of Engineering. This year GIS began development of an MS program under the College's new undesignated MS program. Interestingly, increasing the educational role of the Center is a direction that has been strongly advocated by the GIS Center Advisory Board. In AY 2004-2005, faculty and research personnel in the GIS Center taught six GIS-related courses. These courses served students from City and Regional Planning, Building Construction, Architecture, Civil and Environmental Engineering, Earth and Atmospheric Sciences, International Affairs and Public Policy. Discussions are underway with several schools in the Ivan Allen College for expanding these offerings. Presently, class room and teaching lab availability is the largest constraint to this expansion. In addition to teaching courses, the GIS Center administers the campus-wide site licenses for ESRI and ERDAS software products. Free access to these software products provides GIS with a capability for a wide range of students, faculty and staff. Without these site licenses and the support provided by the Center, it would be difficult for Georgia Tech students and faculty to employ GIS technology as a part of their courses and research projects. The total value of the GIS Center's active contracts for the past fiscal year was \$2.2 million. Funding from the State of Georgia remains the single most important source of support for the GIS Center. The National Science Foundation is our second largest sponsor. In the upcoming fiscal year the Strategic Initiative and the GIS Clearinghouse projects will be funded at the same level as this past year. James Tsai and his team continue to work with the Georgia Department of Transportation (GDOT) on advanced database applications and innovative, real-time data collection techniques. This spring Dr. Tsai completed a project for the State Road and Tollway Authority (SRTA) that extends the image recognition techniques developed in earlier projects to license plate recognition applications. Last fall Steve French was asked to lead the Expanded Social Science Research Program for the Mid-America Earthquake Center. This effort was key to NSF's renewal of the center. As a part of that effort he leads a team of researchers at four universities that are building quantitative models of the social and economic impacts of earthquakes. French and Muthukumar continue to collaborate with faculty and students from civil engineering departments at Georgia Tech and University of Illinois to develop innovative methods to produce earthquake risk building inventories using advanced technologies, including remote sensing, neural networks and data mining. Dr. French was also asked to participate on a team with researchers at University of Nevada-Reno and the University at Buffalo on a \$5 million NESSR fire and earthquake proposal to NSF. Tony Giarrusso continues to attract significant environmental GIS support. He is currently leading a project that is analyzing the ability of Georgia K-12 students to walk to work. This project builds on the work Mr. Giarrusso has done on the Neighborhood Parks and Active Living project

with the Rollins School of Public Health at Emory University. Mr. Giarrusso continues to provide GIS support for the Arthur Blank Family Foundation and has a number of other projects with state and national environmental groups. Paul Beaty completed the production of the 1999 Color Infrared Digital Orthophotography this year. He recently converted this color infrared data into simulated true color to support a wider set of users and applications and is currently converting paper maps of the Atlanta sewer system to digital form using advanced scanning and rectification techniques.

- **The Center for Quality Growth and Regional Development (CQGRD):** In its second full year of operation, The Center for Quality Growth and Regional Development (CQGRD) has established itself as a leader among entities primarily concerned with quality growth issues locally, regionally, and internationally. It is increasingly identified as a leader by the community, elected officials, professionals, and others dedicated to the task of improving the quality of life for citizens. The Center has partnered with the Economic Development Institute (EDI), the Urban Land Institute (ULI), Glattig Jackson, the Regional Plan Association (RPA), the Department of Community Affairs (DCA) among several public and private entities. The Center held its first meeting of the CQGRD Consortium in February 2005 that included the following universities: Clark Atlanta University, Emory University, Mercer University, Georgia State University, and University of Georgia. The first Governments and Growth Workshop, a hands-on training session on attracting and implementing quality growth, was held at Georgia Tech's Global Learning Center, November 17-19, 2004. The Center participated in its first international program with the Fundacion Metropoli, Urban Land Institute, the Regional Plan Association in Madrid, Spain and the University of Pennsylvania. The Center received \$100,000 funding from the National Science Foundation for an interdisciplinary research effort to model materials flows in urban centers for the promotion of sustainable industrial systems. Working with Georgia Tech's Economic Development Institute, the Center received \$60,000 from the Camden County Public Service Authority for the development of an Economic Diversification Plan which will focus on tourism development, business recruitment and development, and existing industry expansion and retention. Dr. Catherine Ross, Director of the Center, was named an Academic Fellow of the Urban Land Institute and was also named to the ULI Atlanta Executive Committee. In addition, Dr. Ross was asked to chair the Transportation Committee for the Midtown Alliance.
- **Interactive Media Architecture Group in Education (IMAGINE):** The IMAGINE Group was very active in several important projects this year. The group worked with The Georgia Aquarium design team to create visual simulations of both the building and its exhibition areas. A second major effort was directed at the bid for the NASCAR Hall of Fame. Visual simulations of this project proposal, including both exterior and interior simulations, were part of the proposal to NASCAR. Internally the IMAGINE Group began experimentation with advance gaming engines. The intent is to produce visualizations in real time of proposed capital projects. The lab received for the sixth year the Rosser Internationals Graduate Research Assistantship grant to support work in "Visualization in Architecture."

Architecture Library: The Architecture Library collection has grown to nearly 44,942 volumes. Approximately 1300 new books were added this year, many of which were purchased with funds from the Preston Stevens Endowment. College of Architecture faculty actively participates in collection development, as a result of ongoing efforts to involve all academic programs in the selection process. The Architecture Librarian continues to work closely with College of Architecture faculty on customized library instruction. Students had online access to 1018 course readings, mainly journal articles, through electronic reserves. This year, the Architecture Library's five GALILEO Interconnected Libraries (GIL) workstations were upgraded, and the College provided two additional MAC G-4s for the library's computer lab. The Architecture Librarian, Kathy Brackney, continues to be very active in the Association of Architecture School Librarians (AASL). Currently, she is the AASL Archivist and Co-Chair of the

Task Force on the National Architectural Accrediting Board (NAAB) Standards for Libraries. She is also a member of the Statistics Clearinghouse Committee that collects and disseminates statistics of North American architecture libraries for benchmarking purposes.

Outreach: The past year marked several notable outreach activities, engaging the college with a larger public. Enrollment in Professional Education Programs decreased to 438 in 2004-2005 from the previous year's high of 671 students. Despite the decrease in enrollment, gross revenue from these courses increased by 23% to \$271,221. The College's Career Discovery Program attracted 35 high school students this year, a slight decrease from last year's high of 37 students. The sustained success of this program over the past decade presents an opportunity to expand the program for students interested in Building Construction and Industrial Design as well as Architecture. Faculty members in the College were elected to offices of professional and academic organizations at the national, regional, and local levels. Associate Dean Sabir Khan was elected national treasurer of the Association of Collegiate Schools of Architecture; Dr. Robert Craig was re-elected national secretary of the Society of Architectural Historians, and national President of the Nineteenth Century Studies Association (NCSA); Dr. Elizabeth Dowling was elected as a member of the Board of Advisors of The Institute of Classical Architecture/Classical America, in New York; Ellen Dunham-Jones was elected to the board of the Congress for the New Urbanism and was also appointed to the editorial board of *Places* magazine; Dr. Craig Zimring was elected to the board of the national Center for Health Design. Music faculty were especially active with Dr. Andrea Strauss serving as guest conductor with the United States Army Band in a performance in Rome Italy, and Dr. Gil Weinberg's compositions *itur I* and *iturII* performed at the International Computer Music Festival in Miami, Florida.

Summary: Contributions of the College to the Institute

Through its research centers and academic programs, the college made substantial contributions to the City, the State and the Nation in the past year.

- The Center for Quality Growth and Regional Development's (CQGRD) partnerships with Georgia Tech's Economic Development Institute (EDI), the Urban Land Institute (ULI), Glattig Jackson, the Regional Plan Association (RPA), and the Georgia Department of Community Affairs (DCA) on several programs during the past year places the College and the Institute at the center of an ongoing public discussion concerning the shape, nature, and quality of the region and the nation's urban future. In February of 2005 the CQGRD established a consortium of Universities, including Clark Atlanta University, Emory University, Mercer University, Georgia State University, and the University of Georgia, placing the College and the Institute in a leadership position concerning the growth of the State and the Region. Internationally, the CQGRD and the City and Regional Planning Program, together with City Planning graduate students from the University of Pennsylvania, participated in its first international program with the Fundacion Metropoli, in Madrid, Spain.
- Faculty in the College of Architecture made substantial contributions to knowledge in their respective fields. In the past year, College faculty won three national and two regional design awards, published three books, and authored five book chapters. The faculty this year also published forty-six refereed articles in archival journals, seventy-four refereed conference proceedings, fourteen technical reports, and two encyclopedia entries. In addition, faculty collectively delivered forty-two invited lectures and made forty-six conference presentations without proceedings.
- The College maintained its strong record of externally funded research through its instructional programs and research centers. This past year, external funding reached 8.66 million dollars. Although this is slightly lower than the previous year's high of 8.89 million, this represents a

sustained level of research activity at a very high level when compared both to our peer institutions and to our internal levels, historically.

- The College contributed substantially to the Institute's global mission and international reputation through the continued strengthening of its international programs in Paris, France; Rome, Italy; and the Netherlands. The Architecture Program joined the first group of degree granting units to establish a curriculum for the Institute's new International Plan. The College continued to provide humanities electives to the Institute. This past year, 46% of the students who were enrolled in Art and Architecture in Italy were from outside the College of Architecture. Finally, among this year's degree recipients in the College of Architecture, 48% had participated in a study abroad program while enrolled at Georgia Tech.