

# CHARTER

## *Interdisciplinary Research Institute for the Sciences (IRIS)*

In keeping with the guidelines and procedures outlined in Organization and Administration of Centers (AA 150-60 of April 28, 2000) and consistent with the mission of the University, the *Interdisciplinary Research Institute for the Sciences (IRIS)* shall be named, organized, and administered as follows:

### 1. NAME

The name of this institute shall be: *Interdisciplinary Research Institute for the Sciences (IRIS)*

### 2. MISSION STATEMENT

The mission of the Interdisciplinary Research Institute for the Sciences (IRIS) is to promote and facilitate interdisciplinary research activities in the computational sciences and engineering. This institute facilitates the interaction and collaboration between researchers from applied mathematics, science, and engineering who have common interests in real-world applications. It provides them the necessary infrastructure and environment to carry out research activities.

In addition, IRIS contributes to the education of undergraduate and graduate students, with a goal of preparing them for careers and graduate study in applied mathematics, science, and engineering. The institute seeks to increase the participation of highly qualified undergraduates – particularly those from underrepresented groups – in careers and/or graduate studies in fields that require a strong background in computation and applied sciences. Through these activities, IRIS strengthens the research and education capacity, infrastructure, and culture of CSUN.

The institute accomplishes these goals by conducting interdisciplinary research projects through the participation of faculty members at CSUN, fostering partnerships and collaborations between academic departments, building collaborations with similar institutes and centers at other universities, and proposing joint projects with local and national industries. The aim of the institute is to function as an independent and self-sustained entity. Its proper function depends to a great extent on external funding.

In the arena of education and mentoring, IRIS serves as a bridge between academics and interdisciplinary careers in the mathematical sciences and engineering. It provides highly motivated and dedicated students with solid training in computational sciences by

engaging them in group and individualized research projects of an interdisciplinary nature. Participating students will discover the intricacies of real-world scientific problems, and experience the rewards of interdisciplinary work in applied mathematics, science, and engineering.

### **3. MEMBERSHIP**

Membership is open to all interested faculty, students, and researchers who come from communities within the region, as well as national and international researchers of prominence. IRIS will conduct interdisciplinary research projects through the participation of faculty members at CSUN; foster partnerships and collaborations between academic departments; build collaborations with similar institutes and centers at other universities; and propose joint projects with local and national industries. A preliminary list of CSUN Research faculty is included in the Appendix (See Section 8).

### **4. ORGANIZATION**

#### **4.1 SUPERVISING UNIVERSITY UNIT**

IRIS shall be a *University Center* that will operate under the general administrative supervision and oversight of the Dean of the College of Science & Mathematics.

#### **4.2 . ORGANIZATIONAL STRUCTURE**

IRIS shall be administrated and managed by a Director and assisted by an Executive Board. Ad hoc project committees may be created to assist with specific projects. Such committees will be appointed by the Director in consultation with the Executive Board. These committees will meet as needed to pursue such activities as the development of new initiatives, coordination and assessment of current projects, and grant proposals. In addition, IRIS shall have an External Advisory Board to review the institute's activities, suggest new leads and/or directions for funding opportunities, and set the performance goals for future years.

##### **4.2.1 Director**

The first Director of IRIS shall be appointed by the Dean of the College of Science & Mathematics. Thereafter, if a vacancy of the directorship arises, that position shall be filled by the Dean of the College of Science & Mathematics in consultation with the Executive Board of IRIS. The Director is responsible for the general operation and administration of IRIS. Responsibility of the direct operation of a specific program/project may be delegated, as may other responsibilities of the Director, as necessary. The

Director shall be responsible for managing funds, staffing programs, and administrative operations, as well as for arranging for space, equipment, and other resources and facilities required to support the work of IRIS. The Dean of the College of Science & Mathematics is ultimately responsible for all financial matters related to IRIS.

#### **4.2.2 Executive Board**

The Director of IRIS, in consultation with the Dean of the College of Science & Mathematics, shall select the Executive Board consisting of five to ten CSUN members of IRIS who reflect the diversity of disciplines in the applied mathematics, science, and engineering. When vacancies arise on the Executive Board, they will be filled by the Director in consultation with the Dean of the College of Science & Mathematics and extant members of the Executive Board. The Director shall convene the Executive Board as deemed appropriate, to provide counsel on matters of policy, development, and to ensure that IRIS activities are consistent with its purposes and functions. IRIS shall operate within the policies of the university and shall be governed under bylaws and operating rules established by the Executive Board.

#### **4.2.3 External Advisory Board**

The External Advisory Board shall consist of an External Scientific Committee and an Industrial Advisory Committee. The Director of IRIS in consultation with the Dean of the College of Science & Mathematics and the members of the Executive Board shall select the External Board consisting of worldwide recognized researchers from academia for the External Scientific Committee, and leaders of local and national industries for the Industrial Advisory Committee. The External Advisory Board will review the institute's activities, suggest new leads and/or directions for funding opportunities, and set the performance goals for future years. The External Advisory Board shall meet at least once per academic year.

### **5. RESOURCE REQUIREMENTS AND FUNDING**

The aim of IRIS is to function as an independent and self-sustained entity. Its effective functioning depends to a great extent on external funding. IRIS funds will be administrated by the University Corporation or the University Foundation, depending on the requirements of the funding agency. The Director will be responsible for oversight. However, during its first five years, IRIS will be supported by the University to initiate the proper functioning of its activities. These activities include (but are not restricted to) writing grant proposals, performing lab and numerical experiments, attending and/or organizing workshops and conferences, and hosting visiting scholars. The university support will be provided as follows:

## **5.1 FUNDING**

The Office of the Provost and the Dean's office of the College of Science & Mathematics have agreed to provide annual funding for five years.

## **5.2 PERSONNEL**

The office of Provost will provide the salary of a post-doctoral position beginning September of 2011 which will continue for at least four years. Each year, IRIS will fund about eight undergraduates and four graduates to perform research experience. In addition, IRIS will fund release time for its members to conduct research activities as well as to write grant proposals.

## **5.3 FACILITIES**

The Dean's office of the College of Science & Mathematics will provide space for the postdoctoral fellow, Director, administrative assistance, and computer lab as needed.

## **6. ANNUAL REPORT**

By August 15 of each year, the Director shall issue a written annual report of IRIS' activities and operations, including finances, in conformity with university regulations. Additionally, this report shall contain a narrative and budget plan for the next academic year. The plan shall set forth the measurable goals and objectives of IRIS for the next year (or longer). The report shall be submitted to the Dean of the College of Science & Mathematics. The Director shall then meet with the Dean of the College of Science & Mathematics to review all proposed activities, plans, committees changes, and budget projections for proposed IRIS projects. The Dean shall review additional activities proposed during the academic year, as necessary.

## **7. PERIOD OF OPERATION**

All projects and component organizations of IRIS will operate for fixed periods and will be automatically dissolved at the end of the period unless renewed by the Director in consultation with the Executive Board. The initial period of operation shall not extend beyond June 30 of the fifth year following IRIS' establishment, at which time IRIS is expected to be fully self-supported by grants and contracts. IRIS may be renewed in accordance with established university policies. In the event of the institute's dissolution, any remaining assets will become the property of the university.

## 8. APPENDIX

### CSUN Research Faculty Members (Preliminary Confirmed List)

<b>Name</b>	<b>Title</b>	<b>Department</b>
Alexander Alekseenko	<i>Associate Professor</i>	Mathematics
Ali Amini	<i>Professor</i>	Electrical Engineering
Jorge Balbas	<i>Assistant Professor</i>	Mathematics
Behzad Bavarian	<i>Professor</i>	Manufacturing Systems Engineering & Management
Cristina Cadavid	<i>Professor</i>	Physics and Astronomy
Randy Cohen	<i>Professor</i>	Biology
Dale Conner	<i>Professor</i>	Manufacturing Systems Engineering and Management
Daniel Curtis	<i>Assistant Professor</i>	Chemistry and Biochemistry
Maria-Rita D'Orsogna	<i>Assistant Professor</i>	Mathematics
Rabia Djellouli	<i>Professor</i>	Mathematics
Jussi Eloranta	<i>Assistant Professor</i>	Chemistry and Biochemistry
Simon Garrett	<i>Assistant Professor</i>	Chemistry and Biochemistry
Hamid Johari	<i>Professor</i>	Civil Engineering & Applied Mechanics
David Klein	<i>Professor</i>	Mathematics
Gang Lu	<i>Assistant Professor</i>	Physics and Astronomy
Sean Murray	<i>Assistant Professor</i>	Biology
Vladislav Panferov	<i>Assistant Professor</i>	Mathematics
Dayanthie Weeraratne	<i>Assistant Professor</i>	Geological Sciences
Ali Zakeri	<i>Professor</i>	Mathematics

