

GEORGIA INSTITUTE OF TECHNOLOGY  
OFFICE OF CONTRACT ADMINISTRATION  
SPONSORED PROJECT INITIATION

Date: March 24, 1980

Project Title: Specialized Research Equipment: Automated Radiation Laboratory

Project No: E-21-610

Project Director: Dr. G. K. Huddleston

Sponsor: National Science Foundation

Agreement Period: From February 15, 1980 Until July 31, 1981 (Grant Period)

Type Agreement: Grant No. ECS-7923613, dated 3/10/80

Amount:  $\left. \begin{array}{l} \$35,000 \text{ NSF (E-21-610)} \\ 35,000 \text{ GTRI (E-21-606)} \\ 16,753 \text{ GIT (E-21-351)} \end{array} \right\} \text{Cost sharing}$   
\$86,753 TOTAL

Reports Required: Final Project Report

Sponsor Contact Person (s):

Technical Matters

NSF PROGRAM OFFICIAL

C. Paul Christensen  
Program Director for Quantum, Electronics,  
Waves and Beams  
Division of Electrical Computer and  
Systems Engineering  
Directorate for Engineering and Applied  
Science  
National Science Foundation  
Washington, D. C. 20550  
(202) 632-5881

Defense Priority Rating:

N/A

Contractual Matters

(thru OCA)

NSF GRANTS OFFICIAL

Hugh L. Lyon  
AAEO/EAS Branch, Section II  
Division of Grants and Contracts  
Directorate for Administration  
National Science Foundation  
Washington, D. C. 20550  
(202) 632-5860

Assigned to: Electrical Engineering (School/~~Laboratory~~)

COPIES TO:

Project Director  
Division Chief (EES)  
School/Laboratory Director  
Dean/Director-EES  
Accounting Office  
Procurement Office  
Security Coordinator (OCA)  
Reports Coordinator (OCA)

Library, Technical Reports Section  
EES Information Office  
EES Reports & Procedures  
Project File (OCA)  
Project Code (GTRI)  
Other C. E. Smith

28 Mar 80  
HE

SPONSORED PROJECT TERMINATION SHEET

Date 4/2/82

Project Title: Specialized Research Equipment: Automated Radiation Laboratory

Project No: E-21-610

Project Director: Dr. G. K. Huddleston

Sponsor: National Science Foundation

Effective Termination Date: 7/31/81

Clearance of Accounting Charges: 7/31/81

Grant/Contract Closeout Actions Remaining:

- ☐ Final Invoice and Closing Documents
- ☒ Final Fiscal ~~Report~~ Accounting (FCTR)
- ☒ Final Report of Inventions
- ☐ Govt. Property Inventory & Related Certificate
- ☐ Classified Material Certificate
- ☐ Other \_\_\_\_\_

Assigned to: Electrical Engineering (School/~~Laboratory~~)

COPIES TO: Research Administrative Network

~~Administrative Coordination~~  
Research Property Management  
Accounting  
Procurement/EES Supply Services

Research Security Services  
Reports Coordinator (OCA)  
Legal Services (OCA)  
Library

EES Public Relations (2)  
Computer Input  
Project File  
Other \_\_\_\_\_



GEORGIA INSTITUTE OF TECHNOLOGY  
SCHOOL OF ELECTRICAL ENGINEERING  
ATLANTA, GEORGIA 30332

TELEPHONE: (404) 894-2961

March 24, 1982

National Science Foundation  
Division of Grants and Contracts  
Post-Award Projects Branch  
1800 G Street, N. W.  
Washington, D. c. 20550

Ref: NSF Award Number ECS-7923613, Specialized Research Equipment

Dear Sirs:

The Final Project Report is forwarded in conformance with the grant specifications.

Should you have any questions or comments regarding this report, please feel free to contact me at (404) 894-2961.

Sincerely,

Marsha Segraves U  
Admin. Asst.

cc: OCA (2)  
Dr. G. K. Huddleston  
file

/ms

PLEASE READ INSTRUCTIONS ON REVERSE BEFORE COMPLETING

## PART I-PROJECT IDENTIFICATION INFORMATION

1. Institution and Address Georgia Institute of Technology School of Electrical Engineering Atlanta, Georgia 30332	2. NSF Program Specialized Res. Equipment	3. NSF Award Number ECS-7923613
	4. Award Period From 2-15-80 To 7-31-81	5. Cumulative Award Amount \$35,000
6. Project Title Automated Radiation Laboratory		

## PART II-SUMMARY OF COMPLETED PROJECT (FOR PUBLIC USE)

Specialized research equipment has been obtained to establish an Automated Radiation Laboratory in the School of Electrical Engineering at Georgia Institute of Technology. The facility provides the capabilities to automatically acquire, store and process voluminous electromagnetic field measurement data in the 8.2 - 12.4 GHz frequency band as received by a probe antenna accurately positioned on a spherical measurement surface enclosing the antenna under test. The positioner, amplitude/phase receiver, phase-locked microwave source, and microcomputer equipment cost \$90,488, including waveguide components and interfacing electronics. The equipment is housed in a control room and adjacent anechoic chamber measuring 29' x 47' x 11' high and lined with 5-inch (50 dB) pyramidal absorber material costing a total of \$36,400, including renovations. The facility is being readied for use on a number of faculty and student research programs involving near-field/far-field transformations, electromagnetic interference, and scattering. Matching funds were provided by Georgia Tech Research Institute.

## PART III-TECHNICAL INFORMATION (FOR PROGRAM MANAGEMENT USES)

1. ITEM (Check appropriate blocks)	NONE	ATTACHED	PREVIOUSLY FURNISHED	TO BE FURNISHED SEPARATELY TO PROGRAM	
				Check (✓)	Approx. Date
a. Abstracts of Theses	X				
b. Publication Citations	X				
c. Data on Scientific Collaborators	X				
d. Information on Inventions	X				
e. Technical Description of Project and Results					
f. Other (specify)					
2. Principal Investigator/Project Director Name (Typed)  Gene K. Huddleston	3. Principal Investigator/Project Director Signature  A			4. Date  3/23/82	

PATENT AGREEMENT

I the undersigned, an employee of the GEORGIA INSTITUTE OF TECHNOLOGY, as a condition of my assignment to work on Research Project No. E-21-610 under a Grant agreement ( Grant No. ECS-7923613 ) between the Georgia Tech Research Institute and the National Science Foundation (NSF) hereby agree to the following conditions as to patent rights:

PATENT RIGHTS - Whenever any invention, improvement, or discovery (whether or not patentable) is made or conceived or first time actually or constructively reduced to practice in the course of, in connection with, or under the terms of said project, I shall immediately give NSF written notice thereof, and shall thereafter furnish NSF with complete information thereon; and NSF shall have the sole and exclusive power to determine the disposition of all rights in such invention, improvement, or discovery, including title to and rights under any patent application or patent that may issue thereon. The determination of NSF on all these matters shall be accepted as final; and I agree that I will execute all documents and do all things necessary or proper to the effectuation of such determination.

Gene K. Huddleston  
\_\_\_\_\_  
(Typed Name)

\_\_\_\_\_  
(Signature)

WITNESS:

\_\_\_\_\_  
March 23, 1982  
(Date)