Robotics and Automation Council
Meeting Minutes: 12/10/88

Robotics and Automation Council Meeting Minutes
Hyatt Regency Hotel on Town Lake
Austin, Texas
December 10, 1988

1. The meeting was called to order by President Ho at 9:11am.

2. LIST OF ATTENDEES

    Y. C. Ho, President
    A. K. Bejczy, Past President
    G. N. Saridis, Founding President
    A. C. Sanderson, Vice President
    G. Lee, Secretary
    R. D. Klafter, Treasurer
    R. W. Brockett, Chairman, Meetings Committee
    L. S. Haynes, Chairman, Standards Committee
    G. A. Bekey, Editor of Journal and General Chairman of 1989 Conference
    J. M. Hollerbach, Program Chairman, 1989 Conference
    R. A. Volz, General Chairman, 1990 Conference
    A. J. Koivo, Control Systems, and Program Chairman, 1990 Conference
    V. J. Lumelsky, Chairman, Robot Motion & Path Planning Tech. Comm.
    T. J. Tarn, Chairman, Robot Dynamics & Control Tech. Comm.
    S. B. Gershwin, Chairman, Manufacturing Automation Tech. Comm.
    T. Fukuda, Chairman, International Committee
    P. Khosla, Circuits and Systems
    J. Baillieul, Control Systems
    W. A. Gruver, Systems, Man and Cybernetics
    D. G. Raheja, Reliability
    T. C. Hsia, Guest

3. REVIEW AND ADOPTION OF AGENDA

    The meeting agenda was adopted with minor correction on some typos.

4. APPROVAL OF MINUTES OF PREVIOUS MEETING

    The minutes of the R&A AdCom meeting held on April 25, 1988 at the Franklin Plaza Hotel in Philadelphia, PA, were amended and approved.

5. MEETINGS COMMITTEE REPORT

1988 Conference

5.1 Brockett reported that the 1988 Conference had a surplus of $58,000. The total number of attendees is 714 with 169 students. 247 attended workshops (above expectation) while 141 attended tutorials (below expectation). The total expenditure for the Conference was $139,000, $27,000 below the approved budget. Brockett cited a few reasons for the success of the 1988 Conference such as no concluding reception, fixed-time coffee break throughout the conference, and efficient use of video/audio equipment.

1989 Conference

5.2 Bekey, Conference Chairman of 1989 Conference, reported that the main theme of the Conference is Artificial Intelligence and Robotics. The Conference will be held in the second week of May (May 14-19) because of a drop of hotel rate beginning that week. The paper sessions will start on Monday afternoon. Monday night will have a welcome reception and the conference banquet will be on Tuesday. Wednesday will be a half-day session with a social dinner in the evening. A reception will be planned for Thursday evening. And finally, several post-conference tours will be organized for Saturday. Further discussions were focussed on handling video/audio equipment, author breakfast, and plenary sessions. A straw vote from the AdCom members indicated that majority favored "free breakfast for authors."

5.3 Hollerbach, Program Chairman of 1989 Conference, reported that 679 papers (including invited papers) had been submitted for the Conference. The Program Committee will meet on January 7, 1989 at MIT to decide the papers and programs. Hollerbach also indicated that there were many papers from overseas, in particular from People Republic of China (23 papers) and from Japan (42 papers).

1990 Conference

5.4 Volz, Conference Chairman of 1990 Conference, indicated that the Conference will be held in Cincinnati, Ohio. The date and the hotel had not been finalized, however, preliminary information indicated that the hotel rate will be around $84 per night with one free room per 50 attendees. A preliminary conference budget done by Harry Hayman, based on the 1989 Conference budget, showed a surplus of $4,390 with an income of $190,590 and an expenditure of $186,200. Ho cautioned about the conference date and indicated that the American Automatic Control Council (AACC) had expressed concerns that the conference dates for the R&A Conference and the ACC were too close. Ho suggested not to pick dates in late May.

5.5 Koivo, Program Chairman of 1990 Conference, reported that the main theme of the Conference had not been fixed, however, some possible themes were sensor-based robotics, intelligence, etc. Two vice-chairmen, one in robotics and the other in manufacturing, may be selected for the Conference.

1991 Conference and Beyond

5.6 Brockett indicated that no other proposals were received except Hsia's proposal which was submitted to the Meeting Committee at the last AdCom meeting in Philadelphia, PA. A motion (Baillieul, Khosla) to accept Hsia's proposal for the 1991 Conference site was approved.

5.7 Hsia thanked the Council for selecting Sacramento as the 1991 Conference site. He indicated that T. J. Tarn had agreed to be the Program Chairman, and the main theme of the Conference will be Intelligent Control and Manufacturing. The Conference will be held either on April 8-12, 1991 or April 29 - May 3, 1991. A possible hotel is Hyatt Regency with 500 rooms and 2 more hotels nearby. The 1989 hotel rate is $92 per night. Hsia indicated that he will continue to negotiate with the hotel to bring down the rate. Another possible hotel is Redline Inn which is 1 1/2 miles out from the Convention Center.

Utah Microrobot Meeting

5.8 Brockett indicated that the first meeting was held in Hyannis in November 1987 and the second meeting will be held in Utah in February 1989. The 1990 meeting will be held in US (Bay Area) and the 1991 meeting will probably be held in Japan. Roger Howe of UC-Berkeley and John Wood (with Jacobsen) of Univ. of Utah had a proposal to host the 1990 meeting in the Bay Area. A motion (Brockett, Baillieul) was approved: "Society agrees to sponsor the 1990 Micro-Electromechanical Workshop in the Bay Area under the leadership of Roger Howe and John Wood pending approval of their budget at the next May meeting. Our advance will not be greater than $10,000." Another motion to authorize Sanderson to establish a steering committee for the Microrobot Meeting was approved.

Sponsorship of other conferences

5.9 Brockett indicated that 25% of the AdCom meeting time were spent on discussing "lending our name to non-IEEE conferences." For future sponsorship/in-cooperation-with of other conferences, Brockett suggested the following set of guidelines/conditions for other conferences seeking sponsorship/in-cooperation-with from the R&A Society:
(a) The conference must be nonprofit, open to all IEEE members, and must deal with

robotics and/or automation.

(b) The organizers must obtain letters of endorsement from at least two members of AdCom and forward them along with a description of the technical thrust of the conference, the conference dates, location, etc. to the meetings coordinator.

(c) Upon receiving the appropriate information, the president and the meetings coordinator, working together, will be empowered to approve IEEE Robotics and Automation Society sponsorship in those cases where no financial obligation is involved. If they desire, they can withhold approval pending discussion at the next AdCom meeting.

A motion was passed to adopt the above guidelines for future conference sponsorship by the R&A Society.

6. REPORT ON TRANSITION AND ELECTION PROCEDURES FOR THE NEW AdCom

6.1 Ho reported that Bejczy is the Chairman of the Nominating Committee for nominating candidates for the 18 AdCom positions; this Committee will be assisted by an Advisory Committee consisting of Saridis (Chairman) and four former chairmen. Ho asked for volunteers to stand for AdCom election, and he had provided a list of candidates to Bejczy and Sanderson.

6.2 Bejczy indicated that the next AdCom meeting in May 1989 will have new AdCom members. Currently, he has a list of 39 names, and each of these individuals should indicate his willingness to stand for election by the end of December 1988. (The final list is attached as Attachment A to the end of the minutes.) Currently, 7,000 plus Journal subscribers (i.e., Society members) will vote in a mail ballot for the 18 AdCom slots. The elected 18 AdCom members will be randomly selected to serve for one-year, two-year, or three-year terms, with six members to be elected each year. No AdCom members shall serve for more than two consecutive three-year terms, but eligibility is restored after a lapse of two years.

7. PUBLICATION COMMITTEE REPORT

Journal

7.1 Bekey, editor of Journal, indicated the publication of the Journal has been on time during 1988. Currently, there is a backlog of 50 papers and the publication time of a paper is approximately 1 1/2 - 2 years (see Attachment B at the end of the minutes). Because of the backlog, he indicated to the Editorial Board to tighten the paper acceptance standard. Bekey also requested an increase of Journal pages to reduce the backlog and to publish special issues.

A motion: "AdCom authorizes an increase of budget for 112 pages for the Journal for

1989 and 1990" was approved.

An amendment to re-examine the 1990 Transactions/membership fee was also passed.

7.2   Bekey indicated that, due to his research/teaching activities and other responsibilities, he has asked Russell Taylor of IBM to replace him as the Editor of the Journal effective February 1989. Taylor will also develop guidelines for the publication of future special issues.

Newsletter

7.3   Ho reported that Snyder, the Newsletter editor, represented the R&A Society on the IEEE Neural Networks Committee. Due to his recent activities in the Neural Networks Committee, Snyder resigned from his post; however, his wife, Rosalyn, is willing to provide assistance if asked. Currently, it costs $7,000 to publish per issue with $4,000 going to printing and $3,000 going to editing.

8.   TREASURER'S REPORT

8.1   Klafter reported that the R&A Society is still in good financial shape. Net surplus for 1988 (10/31/88) is about $152,000 with an accumulative net worth (10/31/88) of about $316,200. His report is attached as Attachment C to the end of the minutes.

9.   BRIEF REPORTS FROM TECHNICAL COMMITTEES

9.1   Lumelsky, Chairman of Robot Motion & Path Planning Technical Committee, indicated a special issue has been published and another special issue is forthcoming.

9.2   Tarn, Chairman of Robot Dynamics & Control Technical Committee, will consider a special issue also.

9.3   Gershwin, Chairman of Manufacturing Automation Technical Committee, will consider a Flexible Manufacturing Systems Conference.

Bejczy indicated that Robotics International Inc. would like to "give" us their annual technical conference every two years.

9.3   Fukuda, Chairman of International Committee, had recruited new members from foreign countries. 300 people attended Fukuda's Workshop — 1988 IEEE International Workshop on Intelligent Robots and Systems. The 1992 Workshop will be held in US.

Sanderson indicated that the R&A Society would like to have local chapters in Japan as well as other countries.

10. EDUCATION COMMITTEE REPORT

10.1 Khosla discussed CMU's Ph.D. program in Robotics. The program involves 3 colleges: Computer Science, Engineering, and Business Administration.

11. STANDARD COMMITTEE REPORT

11.1 The Standards Committee Report was presented by Len Haynes. He briefly summarized two requests for comments which had been made by the IEEE regarding standards. Both related to specification of power systems. Haynes also reported that ISO Draft Standard 9506, Manufacturing Message Service, is in the final stages of international balloting. Together with the Companion Standard for Robots, which will soon be in the balloting phase, 9506 will be an International Standard for the Application Service Element within the Application Layer of OSI for robots. Other Companion Standards are also under development for numerical control machines, inspection equipment, production control systems, and programmable controllers.

12. PHILIPS AWARD

12.1 Ho indicated that the North American Philips Corporation has committed funds to continue to support Philips Student Best Paper Award for the next 10 years. A motion was passed to accept the award.

12.2 To be eligible for the Anton Philips Award, the student (a) must be the first author and primary developer of the paper's ideas, (b) must have student status in June of the year when the paper is submitted, and (c) must be a member of the IEEE.

13. NEURAL NETWORK REPRESENTATIVE REPORT

13.1 Snyder represented the R&A Society on the IEEE Neural Networks Committee. He accepted the position of chairman of the organizing committee of the 1989 Neural Networks Conference.

14. PACE REPRESENTATIVE REPORT

14.1 Khosla represented the R&A Society to attend PACE (Professional Activity Council for Engineers). The PACE meeting discussed various engineering ethics, continuing education, foreign students issue, and policy committee in robotics.

15. OTHER BUSINESS

15.1 Meeting adjourned at 2:30pm.

15.2 Next Meeting: Monday, May 15, 1989 at the Registry Resort, Scottsdale, Arizona, 8:30 am — 2:00 pm, at the call of President Sanderson.

Summary of amendments

(i) Item 12.2 is added.

(ii) Item 5.5 is modified to read "......, *may* be selected for the Conference."

(iii) Professor Wesley Snyder's name was mis-spelled.

Ad Com Candidates

John Baillieul., Boston Univ.	Pradeep K. Khosla, CMU
Antal K. Bejczy, JPL, Cal. Tech	Richard Klafter, Temple Univ.
George A. Bekey, Univ. So. Cal.	A.J. Koivo, Purdue Univ.
Wayne J. Book, Georgia Tech.	C. S. George Lee, Purdue Univ.
Norman Caplan, NSF	James C. Lin, Univ. of Ill., Chicago
Alan Desrochers, RPI	J.Y.S. Luh, Clemson Univ.
Rui J.P. deFigueiredo, Rice Univ.	Charles P. Neuman, CMU
Toshio Fukuda, Science Univ., Tokyo	Richard P. Paul, Univ. of Penn.
Lester A. Gerhardt, RPI	G.V.S. Raju, Ohio Univ.
Stanley B. Gershwin, MIT	George N. Saridis, RPI
Leonard S. Haynes, Intelligent Automation, Inc.	Wesley E. Snyder, N.C. State Univ.
Gerhard Hirzinger, DFVLR, West Germany	Harry E. Stephanou, G. Mason Univ.
Yu-Chi Ho, Harvard Univ.	Tzyh-Jong Tarn, Washington Univ.
John M. Hollerbach, MIT	Russell H. Taylor, IBM, TJ Watson Research Center
John F. Jarvis, AT&T Bell Labs	Walter J. Trybula, G.E. Electronics & Automation
Takeo Kanade, CMU	Charles R. Weisbin, ORNL

IEEE JOURNAL OF ROBOTICS AND AUTOMATION

Number of Papers Received:

January-December 1986		187
January-December 1987		181
January-December 1988		233
	Total	601

Number of Papers Published:

1986:

March	Vol 2 No. 1	6	
June	Vol 2 No. 2	6	
September	Vol 2 No. 3	7	
December	Vol 2 No. 4	6	25

1987:

February	Vol 3 No. 1	8	
April	Vol 3 No. 2	7	
June	Vol 3 No. 3	8	
August	Vol 3 No. 4	10	
October	Vol 3 No. 5	13	
December	Vol 3 No. 6	18	74

1988:

February	Vol 4 No. 1	13	
April	Vol 4 No. 2	15	
June	Vol 4 No. 3	13	
August	Vol 4 No. 4	13	
October	Vol 4 No. 5	13	
December	Vol 4 No. 6	13	80

Total 179

Number of Papers Rejected

1986	85
1987	71
1988	14

Total 169

Backlog - (Papers ready for publication):

1986-87	47
1988	3

Total 50

ROBOTIC AND AUTOMATION COUNCIL

BUDGET REPORT - DECEMBER 10, 1988

ITEM	BUDGET 1988	ACTUAL 10/31/88	BUDGET 1989
1. MEMBER SOCIETY AND AFFILIATES COPIES	6150+392	6951	5437+344
2. STUDENT MEMBER COPIES	612	752	554
3. INDIVIDUAL NON-SOCIETY COPIES	345		309
4. IEEE NON-SOCIETY STUDENT AND MEMBERS	350		313

INCOME (IN K $)

ITEM	BUDGET 1988	ACTUAL 10/31/88	BUDGET 1989
5. MEMBER SOCIETIES SUBSCRIPTIONS	$107.9	$84.1	$91.2
6. INDIVIDUAL NON-MEMBERS SUBSCRIPTIONS	38.0	44.4	34.0
7. NON-MEMBERS ALL TRANSACTIONS	49.5	54.7	59.0
8. PAGE CHARGES (VOL[14.2], EXCESS[7.1])	23.0	21.3	23.0
9. CONFERENCE ('87[40.5], '88[197.2])	189.0	237.7	189.0
10. MSC INCOME	6.4	1.8	8.4
11. INTEREST	12.1	11.0	12.1
TOTAL	$425.9	$455.0	$416.7

EXPENSES (IN K $)

ITEM	BUDGET 1988	ACTUAL 10/31/88	BUDGET 1989
12. JOURNAL	$182.6	$106.6	$171.7
13. NEWSLETTER	34.0	27.5	34.0
14. MSC. PERIODICAL EXPENSE	9.7	13.6	12.6
15. CONFERENCES	173.0	140.0	173.0
16. MSC. IEEE EXPENSES	3.8	5.9	4.8
17. MSC EXPENSES		3.0	
18. AD COM	2.8	6.4	17.7
TOTAL	$405.9	$303.0	$413.8
NET	$ 20.0	$152.0	$ 2.9

NET WORTH 12/31/87	$164.2	[$204.7]
SURPLUS FOR 1988 (10/31/88)	$152.0	[$111.5]
NET WORTH 10/31/88	$316.2	

ADDITIONAL INCOME

LOANS OUTSTANDING ('87 MICROROBOTICS) $5.0

ADDITIONAL ESTIMATED EXPENSES (WORST CASE)

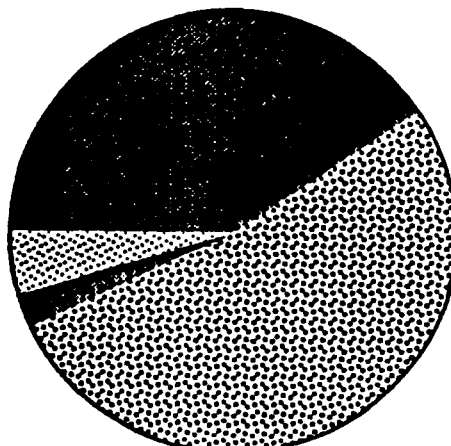|	
JOURNAL (DEC. ISSUE [$25.5] + $50.5)	$76.0
NEWSLETTER	6.5
AD COM	2.5

PROJECTED NET WORTH (WORST CASE) - 12/31/88

$316.2 + 5.0 - 85.0 = $236.2   (DELTA = $72.0 [$31.5])

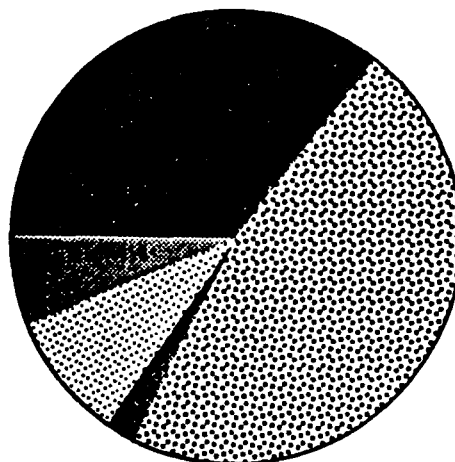# 1988

EXPENSES

Journal-$106,600   35.5%
Conference-$140,000   46.7%
Ad COM-$6,400   2.1%
Newsletter-$27,500   9.2%
Misc.-$19,500   6.5%

1988

INCOME

(10/31/88)

Journal Fees-$183,200   40.4%
Conference-$237,700   52.4%
Interest-$11,000   2.4%
Page Charges-$21,300   4.7%

1989 BUDGET

EXPENSES

(Projected)
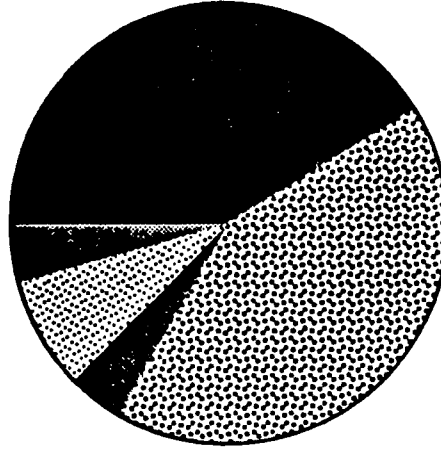
■	Journal-$171,700	41.5%
▨	Conference-$173,000	41.8%
■	Ad COM- $17,700	4.3%
▣	Newsletter-$34,000	8.2%
▩	Misc-$17,400	4.2%

1989 BUDGET

INCOME

(Projected)
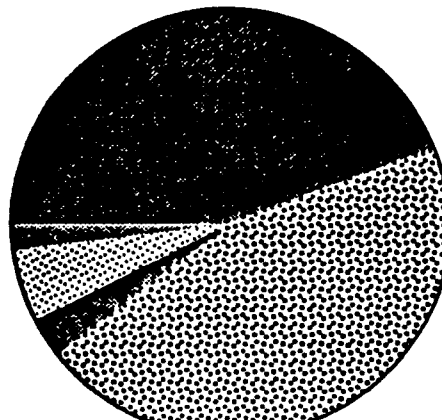
■	Journal Fees-$184,200	44.2%
▨	Conference-$189,000	45.4%
■	Interest-$12,100	2.9%
▣	Page Charges-$23,000	5.5%
▩	Misc.-$8,400	2.0%