

APPROVED: April 8, 1991

**IEEE Robotics and Automation Society AdCom Meeting Minutes
Hilton Hawaiian Village, Honolulu, Hawaii
December 8, 1990**

LIST OF ATTENDEES

A. C. Sanderson, President
R. D. Klafter, Vice-President for Finances
H. E. Stephanou, Vice-President for Member Activities
T. J. Tarn, Vice-President for Technical Affairs
C. S. G. Lee, Secretary and AdCom member
N. Caplan, President-Elect 1990
Y. C. Ho, Past President and Chairman, Nominating Committee
G. N. Saridis, AdCom member and Founding President
R. H. Taylor, AdCom member and Editor of Transactions
M. B. Leahy Jr, Editor of Newsletter
T. C. Hsia, Chairman, Meetings Committee and General Chairman, 1991 Conference
R. A. Volz, General Chairman, 1990 Conference
A. K. Bejczy, AdCom member
W. J. Book, AdCom member
A. A. Desrochers, AdCom member
T. Fukuda, AdCom member and Chairman, International Committee
J. Y. S. Luh, AdCom member
V. J. Lumelsky, AdCom member and Chairman, Robot Motion & Path Planning Tech. Comm.
G. Menga, General Chairman, 1992 Conference and Chairman, International Committee
P. Luh, Chairman, Computer-Aided Production Management
D. E. Orin, Guest

1. APPROVAL OF AGENDA AND MINUTES OF LAST ADCOM MEETING

The meeting was called to order by President Sanderson at 2:09pm.

The meeting agenda was modified by Sanderson and approved.

The minutes of the R&A AdCom meeting held on May 14, 1990 at the Hyatt Regency Hotel, Cincinnati, Ohio, were amended by Desrochers to reflect that the AdCom recommended the president to send a letter to Wes Snyder recognizing his service as Newsletter Editor for the past five years. The amended minutes were approved.

2. REPORT ON STATUS OF THE SOCIETY

President Sanderson reported the following items:

- 2.1 There were proposals being discussed at the IEEE TAB (Technical Activity Board) that may have a potential impact on the Society (Norm Caplan will be involved with future discussions). These proposals proposed to change some of the financial arrangements between the IEEE and the societies either in the form of a kind of tax on societies or of fees for services that societies buy from the IEEE Headquarters. Basically, the IEEE Headquarters is struggling with budgets, and they see that a surplus is building up in robotics and automation, as well as most other societies. There is some negotiations to try to see how to access some of the society funds in order to spread out over central services. At this moment, there is no specific action item that comes up, but it is one of the things which the Society should be aware of.
- 2.2 Sanderson also wanted to give his thanks to the AdCom, the executive officers, and various technical chairmen for their support during the time that he had been president, and he encouraged everyone to continue to support the succeeding president.
- 2.3 Saridis made a motion to go on record to congratulate Art Sanderson and thank him for his contributions to the Robotics and Automation Society. The motion was passed unanimously.

3. VICE-PRESIDENT FOR TECHNICAL AFFAIRS REPORT

Tarn, Vice-President for Technical Affairs, reported the following items:

- 3.1 Tarn has contacted several technical committee chairmen to form their interest groups. Some of them have already started, and Tarn is waiting for their reports.
- 3.2 Tarn indicated that Brian Carlisle of RIA (Robotics Institute of America) has proposed that the IEEE RAS and the RIA hold our conferences together, or side by side. Tarn indicated that such action required an approval from the AdCom. In the meantime, Tarn proposed that Carlisle organized an invited session or a workshop at the 1991 Conference. Tarn and Stephanou looked at Carlisle's proposal and felt that it fits better as a panel discussion. Tarn plans to invite Carlisle to our next AdCom meeting in Sacramento to discuss the issues of this "joint" conference. Sanderson commented that there would be general issues in terms of co-locating the conference or cooperating with the RIA in some meetings and he encouraged both pros and cons about it. Furthermore, there will be a lot of philosophical issues that go with it so Sanderson would like to see a more detailed discussion at the Sacramento meeting (since Carlisle will be there). Saridis commented that maybe we should try to avoid mixing our activities with activities of SME or any of the other groups. Saridis cited

that SME (with RIA) may have more than two thousands of members strong, and holding a conference with them may be difficult.

4. VICE-PRESIDENT FOR MEMBER ACTIVITIES REPORT

Stephanou, Vice-President for Member Activities, handed out a three-page information on society membership (see Attachment A at the end of the minutes), and reported the following items:

- 4.1 We are holding steady on membership as indicated on the first sheet. The first sheet is the membership in our Society for the first 10 months of this year as compared with the total of last year. Stephanou has broken down the membership into students, regular members, and then retired, unemployed, low income and affiliate members. He also indicated that the percentage of our membership as a fraction of IEEE total is pretty much steady. We are showing a slow growth which reflects a growth in students and a very slight decline in regular members. Stephanou also computed the ratio of members in arrears to active members (the sheet showing active divided by arrears), and it is reasonably steady. The ratio fluctuates over the years but around 1/3, and Stephanou has also indicated some comparisons to other societies in Division 10, Control Systems Society, Systems, Man and Cybernetics, Industrial Electronics, and Computers. Our ratio is higher than the others with the exception of Industrial Electronics.
- 4.2 The second sheet shows some geographic demographics. Stephanou has broken down the membership for 1989 according to the 10 regions. The first 6 regions are in the US and the last 4 outside the US. Stephanou calibrated the 1987, 1988 and 1989 distributions for the entire IEEE and also our distribution (in the 4th column), he then compared ours with the other 4 societies in Division 10. The numbers are in percentages of the total members. 37% of our membership is outside the US as compared to 22.5% for the entire IEEE. But that number, even though it is higher, is not out of range with sister societies in Division 10. The growth is occurring primarily in regions 9 and 10.
- 4.3 The third sheet is the distribution by grade and this is for the entire IEEE, not R&A, and there is a reversal, 84% of the fellows are in the US and it goes down almost steadily as you go through senior members, members, affiliates, and students. The proportion of non-US members is still higher for students than for fellows. This may be an indication of growth in those regions.
- 4.4 For chapter activities, we have a chapter in Chile, a student chapter in Orlando; the Princeton and Tokyo chapters are starting to become active. We also have 10 chapters in the process of being formed in the US, 4 in Europe, 1 each in Korea and

Taiwan. One of the activities that is worth mentioning was the Robot Olympics that was successfully held in Scotland earlier this year. Stephanou circulated some press clippings in the meeting. Some questions were raised about registration fees for the conference, whether one can use portion of the registration fees for joining the IEEE. If one joins the IEEE at the R&A Conference, he/she pays member's rates.

- 4.5 Stephanou indicated that he attended a sessions congress in Toronto last October. It was clear that there is an increasing growth and emphasis on non-US members. This is a message that's loud and clear. We do need to attain our activities to membership, particularly Latin America and Asia. Latin America was presented amass; they are very active and very eager, and this might be a prime target for our Society to attract new membership. Many of these Non-US members typically cannot attend the society meetings because of lack of travel funds, and so they look at other ways to benefit from the membership in the society, such as the Transactions, some liaison to their local meetings, tutorials on videotape, workshops on videotape, etc. We typically have about 10% of the members attend the Conference and get involved with our activities, so the message of the Toronto's congress is that we do need to reach out to the other 90% at the grass roots level.

5. VICE-PRESIDENT FOR FINANCES REPORT

Klafter, Vice-President for Finances, handed out a four-page financial report with two budget figures for 1990 and 1991 (see Attachment B) and reported that basically our Society is in excellent financial shape and is experiencing financial health. Important items in his report are:

- 5.1 The actual net worth of the Society at the end of 9/30/90 was about \$515,300 (see line 20, column 2 of the Attachment B). The 1990 Conference provides a surplus of over \$60,000. Klafter indicated that the Transactions expense is way down from \$226,400 in 1989 to \$128,600 in 1990. He expected that the remaining charges will be editor's expenses, and he budgeted \$60,000 for the Transactions for the remaining of the year. Line 25 of the editor expenses were carried over from the expenses occurred in 1989. The Transactions expenses were down because we are publishing less pages.
- 5.2 Klafter estimated the net surplus on 12/31/90 will be \$489,100. Although our surplus is approaching \$500,000, Klafter cautioned that the 1992 Conference in Nice may require a bigger budget. Some discussions followed that focused on who handles the surplus (line 11 indicates interest from our surplus), and how the IEEE may implement a tax on society or a fee for services to clean out the society's surplus (see item 2.1).

6. NOMINATING COMMITTEE REPORT

Ho, Chairman of the Nominating Committee, reported that, in the past, the Nominating Committee consulted with the past presidents for their experience and came up with a slate of candidates for President-elect, VP's and AdCom elections.

6.1 For the election of Vice-Presidents (VP's), Ho nominated Dick Klafter continue to be VP for finances, Harry Stephanou continue to be VP for Membership Affairs, and George Lee, our current secretary, for the VP for Technical Affairs position. Ho also indicated that the AdCom elects the Vice-Presidents at our AdCom meeting in December, and the election of President-elect is taken place at the AdCom meeting held at our annual conference site. The other positions such as secretary are appointed by our President. Saridis made a motion to nominate the vice presidents, Dick Klafter — Finances, Harry Stephanou — Membership, and George Lee — Technical Affairs. The motion was seconded. Sanderson commented that the Nominating Committee has brought forth just one nominee for each of the VP positions. He solicited other nominations from the floor. With no other nominations and discussions, the motion was voted on and the vote was unanimously in favor. Sanderson congratulated the new and the old officers.

6.2 Ho reported that the Nominating Committee tried to nominate a mixture of people for the AdCom election. Every year we need to nominate eight people to stand for election for six AdCom positions. Since the AdCom members whose term has expired this year have actually served the Society for only two years instead of the regular 3-year term, Ho explored the possibility of nominating the incumbents. Four incumbents agreed to stand for election and they are George Bekey, Toshio Fukuda, John Hollerbach, and Antti Koivo. The other four candidates are Robert Kelley (our Publications Chairman), Avi Kak from Purdue University representing Computer Vision area, Steve Hsia (our Meetings Committee Chairman and 1991 Conference Chairman), and George Harhalakis of the University of Maryland, representing automation. The AdCom election will take place in January 1991, and the elected AdCom members will take office at the AdCom meeting in April 1991.

6.3 Norm Caplan, President-Elect 1990, appointed David Orin as his secretary starting January 1 since George Lee will take the VP for Technical Affairs position. Also starting January 1, Sanderson will take over Ho's role as Nominating Committee Chairman for next year, and his first duty is to nominate President-elect 1992, who will take office in 1993, for election at the April AdCom meeting. Sanderson encouraged everyone to send him any suggestions or comments or if anyone wants to volunteer for nominee. Sanderson will then assemble names and following the tradition, pass the list of names through the "Committee of Past Presidents" to discuss who those nominees should be.

7. MEETINGS COMMITTEE REPORT

In-Cooperation-With Requests

- 7.1 Hsia, Chairman of Meetings Committee, reported several in-cooperation-with requests. The first one is the 1992 Japan-USA Symposium on Flexible Automation. The General Chairman is M. Tomizuka of UC-Berkeley. The in-cooperation-with request was endorsed by George Lee and Toshio Fukuda, and Hsia approved the request according to the guidelines set by the Meetings Committee. The other is the 1992 International Conference on Robotics and Computer Vision (ICARCV'92) in Singapore (General Chairman D. P. Mital); since there was no endorsement from any AdCom members, the in-cooperation-with request was discussed and then approved.
- 7.2 The next request is from Paolo Dario for the 1991 ICAR (International Conference on Advanced Robotics) to be held in Pisa, Italy, and the Workshops for IARP (International Advanced Robotics Program). His request consists of (i) joint publication of the proceedings of 1991 ICAR with the IEEE, and (ii) sponsorship of two IARP Workshops, "Robotics in Agriculture" and "Robotics on Space," which will be organized in the same week as ICAR. Norm Caplan, President-Elect 1990, is a member of the IARP panel, and he explained that IARP is a governmental organization with representatives from 7 countries with a spin-off of the original site economic summit in 1982. Dario has used the term IARP in several of his correspondence and he has been told by the Italian representative to the IARP that he has to get an approval from the IARP committee before the workshop can be called an IARP workshop. The IARP workshops are supported by the government or some organization within that country. So the Italian representative has to say that it's an IARP-supported workshop, then it can be called an IARP workshop. Hence, Dario has to go through the Italian representative to get an approval in order to say his workshop is an IARP workshop, and if Dario gets an approval from the Italian representative, then his workshop is automatically supported by the hosting country. Furthermore, attendance of IARP workshops is by invitation only. Hence the AdCom felt that if they were IARP workshops, then the RAS should not consider any co-sponsorship (or any dealings since attendance is strictly by invitation of the country representatives, and it is not open to IEEE). After further discussions, no action was taken as the AdCom felt that clarification on Dario's workshops was necessary for approval. Hsia was asked to correspond with Dario to clarify whether the proposed workshops were IARP workshops or not.
- 7.3 Another request for in-cooperation-with, from Spyros Tzafestas, was received by Art Sanderson. The Conference is "The European Robotics and Intelligent Systems Conference" to be held on June 23-28, 1991, in Corfu, Greece. Some discussion was

raised on its conference date very close to the 1991 ICAR and its topics of interest are also very close to the 1991 ICAR. Since we have already agreed to cooperate with the ICAR (in-cooperation-with), will this be a strain or a problem? Most of the AdCom members did not feel it is a problem; after some discussion, Hsia was asked to handle the approval of this in-cooperation-with request according to the Meetings Committee guidelines.

1990 Conference

- 7.4 Volz, General Chairman of the 1990 Conference, passed out several budget summary sheets. The budget summary is almost final except some late page charges that are not reflected in the budget. As a result, the surplus might be slightly larger than what's showing here but probably not that much. The total income was \$202,303.77, total expenses were \$134,692.26, and a balance of surplus of \$67,611.51. The Conference had a total of 496 attendees and 251 students which make it one of the largest attended conferences. A total of 330 some papers were presented, and about 710-740 papers were submitted; extra page charge was \$250. After some discussion, a motion was made to thank the organizers for last year's conference (1990 Conference) for a job well done. The motion was approved unanimously.

1991 Conference

- 7.5 Hsia, General Chairman of the 1991 Conference, reported on the general organization of the Conference. T. J. Tarn is the Program Chairman, and Peter Luh is the Chairman of "Video Committee" for the video proceedings. The Conference will be held at the Hyatt Regency Sacramento which has 350 rooms for the Conference at a rate of \$98. Two overflow hotels are available, one is Clarion and the other one is the Holiday Inn. Both are very close to the Hyatt, and each has 150 rooms at a rate of \$83. (For the 1990 Conference, the maximum number of rooms that we had was 350 at the highest.) Hsia then commented on the surrounding attractions in Sacramento, the locations of the three hotels, and the inside attractions of the Hyatt.

The schedule for the main events is as follows: Sunday and Monday are for Tutorials, Tuesday through Thursday are for technical programs, and Friday is for Workshops. Also Monday we have the AdCom and the Editorial Board meetings, and the appreciation dinner at 7pm. The reception is on Tuesday evening and the banquet is on Wednesday.

The banquet speaker is Craig Barret who is the executive vice-president of Intel Corp. Also Intel donated \$10,000 for the reception. Two plenary sessions are planned. Tuesday plenary speaker will be Dr. A. Bensoussan of INRIA, France, and Thursday plenary speaker will be Professor Hirofumi Miura of the University of Tokyo, Japan. (For the 1990 Conference, about 300 attended the plenary session.)

A number of tours is also in the process of being organized. Lake Tahoe, Napa Valley, and San Francisco are some of the tours which are in and around the city as well.

Technical tours may include HP, Intel, NEC, the U.S. Post Office in Sacramento, Stanford University, UC-Berkeley, and UC-Davis.

The theme of the Conference is "Automation and Manufacturing in the 90's — International Cooperation." The Organizing Committee hopes to have a larger and balanced program in terms of automation and robotics and international participation. Discussions that followed focused on the wording and the interpretation and meaning of "international cooperation."

The 1991 Conference will have the first "video proceedings." The video tapes will be produced by IEEE Educational Activities Board (EAB) under contract. The budget for producing the videos comes from RAS for \$6,000 and EAB for \$6,000. The price for the video is about \$65.96 per tape for the first 500 tapes. The usual registration fee with proceedings is set at \$225.00. With the introduction of the video, the Organizing Committee decided to give a 20 percent discount off the regular video price of \$66.00 to persons who register for the conference with proceedings. That is, adding this \$53 (20% discount of \$66) to the registration fee with proceedings and rounding it out to the nearest dollar gives us \$280.00 for persons who register for the conference with proceedings and video. Proceedings sales is set at \$125.00, and the video sales is set at \$66.00. The Committee hopes that this 20-percent video discount will encourage people to buy the video as a package in their registration, thus increasing the sales. The Committee hopes to sell 500 tapes to recover their money. (Note: \$12 per tape royalty and 500 tapes to recover our investment of \$6,000.)

- 7.6 Tarn, Program Chairman of the 1991 Conference, passed out information on papers/tutorials/workshops of the Conference and reported that the advanced announcement of the Conference is already in the works and should be out before Christmas. They aimed at getting the advanced program out by the end of January or early February. Tarn then commented on the technical program of the Conference. They had a Technical Program Committee (TPC) meeting on December 1, 1990, in St. Louis. A total of 760 papers were submitted; they are from US (431 papers), Canada (57), Japan (62), China (41), E. Europe (11), W. Europe (124), India (70), Korea (11), and others (23). These papers also include papers from invited sessions. A total of 384 papers were accepted (51% acceptance rate) which will be arranged and presented in eight parallel sessions. The Conference will have two full-day and 2 half-day tutorial sessions, and two full-day and 4 half-day workshops. Of the 760 papers submitted, about 100 were classified as automation and manufacturing papers. Discussions then focused on the effects of "low" paper acceptance rate (51%) on attendance/participation of future conferences, Transactions submission, and membership recruiting, etc. Also there were some complaints from junior faculty who viewed this low acceptance rate as hazardous to their career path. Some suggested poster sessions to alleviate the low acceptance rate. Tarn then commented that the low number of accepted papers is due to the availability of meeting/conference rooms (8 rooms available at a time) for the paper sessions. After

some discussion, a motion was raised to encourage the Program Committee to expand the Conference and accept more papers. The votes were not counted because of split views on maintaining high quality of papers versus getting more attendees. The Organizing Committee seemed to agree to accept more papers and expand to nine parallel sessions, but no poster sessions. It was suggested that this paper acceptance rate be brought up for more detailed discussion at the next AdCom meeting. Lumelsky and Saridis were asked to prepare some position papers on this issue for discussion at the next AdCom meeting.

Klafter commented that a couple of program committee members indicated to him that they had to pay their own way to the Program Committee meeting. Tarn and Hsia indicated that they had decided to reimburse everyone who did not get a reimbursement for their travel.

- 7.7 Peter Luh, Chairman of the Video Committee, reported on the progress of video proceedings. This is the first year that the Conference works on video proceedings. The Video Committee consisted of Steve Hsia, T. J. Tarn, O. Khatib, K. Furuta, M. Raibert, V. Hayward, and P. Wiesner. The Committee met on Nov. 29 to Dec. 1, 1990. There was a total of 66 submissions with a viewing time of 5 hours. The submitted tapes were sent to Tarn by Oct. 15, and Tarn forwarded the tapes to the IEEE for "re-formatting" every tape into VHS format because they are in different formats. All the tapes in VHS format were then sent to each committee member for a one-week viewing at home. Each committee member filled out the form for each tape entry and they combined their reviews in a 3-day session. The final selection has cut the number of tape entries from 66 to 33, and the viewing time from 5 hours of un-edited tapes to one hour of edited tape. These 33 accepted entries were then grouped into 8 different groups. They are: manipulator design (3 entries; 6 minutes total), sensing (3; 6.5 min), manipulator control (6; 11.5 min), vehicles (5; 10.5 min), automation (4; 9 min), robot hand (4; 6 min), tele-robotics (2; 4.5 min), and walking machines (6; 9.5 min). The Committee edited the tapes by cutting out times showing computer components such as keyboards and computers, and also times showing non-essential, non-technical segments. Most of the flow charts and diagrams cannot be seen clearly. Discussions then focused on contents of the tapes, criteria for selecting tapes, cost for making the tape (e.g., 60 minute edited tape versus 90 minute edited tape) and how shall we better handle the video proceedings next time. The cost for "duplicating" a one-hour to a two-hour tape is the same because it all fits into one tape. Once the edited tape exceeds 2 hours long, the cost will be more or less double because it requires a second tape. So the cut-off is maximum two-hour tape.

1992 Conference

- 7.8 Giuseppe Menga, General Chairman of 1992 Conference, discussed several important items of the 92 Conference in Nice. He circulated a brochure about the 92 Conference site. The 92 Conference will be held at Acropolis, the Nice Convention Center, on May 10-15, 1992. Many hotels of different classes will host the participants. The date of the

Conference does not coincide with the Monte Carlo Grand Prix (that will be on the last Sunday of May) or with the Film Festival in Cannes (on the week after the Conference). Leisure programs and spouse programs will be organized for the days before and after the Conference.

Menga reported that the Scientific Committee had met in Turin, Italy, on October 1, 1990. The meeting was attended by P. Bernhard (INRIA and Local Chairman), Georges Giralt (LAAS Toulouse, Technical Chairman), G. Hirzinger (DLR, Oberpfaffenhofen, German representative) and R. Dubon (Chamber of Commerce of Nice). The purpose of the meeting was to discuss how to organize the 92 Conference. The Scientific Committee decided to have a Steering Committee (S.C.) to assist the General Chairman. The S. C. is composed of the Scientific Committee present plus one from the European Community, one from Japan and two from the U.S.A. (Menga proposed A. Koivo for technical programs and A. C. Sanderson for liaison with IEEE).

G. Giralt, Chairman of the Technical Committee (T.C.), proposed the following composition to the T.C.:

40% people from U.S. and Canada (about 19 members)

40% people from Europe (about 19 members)

20% from South American, Japan, Southern Korea, Australia, and China (about 9 members).

The participation from Eastern Europe will be encouraged. The European portion of the T.C. may be composed as follows: 3 each from Italy, France (plus the T.C. chairman), Germany, England, and Russia and Eastern Europe; 1 each from Spain, Holland, Belgium, and Scandinavia. There will be no Program Co-chairman from the US.

The members of the T.C. will stay in touch through e-mail. So the complete T.C. will meet only once for the final selection of the papers. This meeting will be held in Europe and will last for two or three days. During the organization period, the S.C. will meet more than once. All the decisions will be submitted to the AdCom for approval at their scheduled meetings: CDC Conference in Honolulu in December 1990, the 91 R&A Conference in April 1991, and the second AdCom meeting of 1991.

Giralt described how he planned to form the Technical Committee. First a list of candidates, composed of active scientists, will be drafted. From this list, Giralt will make his proposal, including the names of two or three vice-chairmen, according to the different technical areas (Giralt proposed the following vice-chairmen: Larry Ho (or if he should not accept, S. Gershwin), H. Inoue (robotics), and G. Hirzinger (tutorials and workshops). Giralt's proposal will then be passed to the S.C. for approval. Giralt suggested that the AdCom prepared a list of US candidates for the T.C. with the number of people greater than what will be selected. Then Giralt will make his own selection out of these candidates. The selection will be confirmed by the Steering Committee. All the papers will be sent to Giralt, and Giralt and the T.C. vice-chairmen will send papers out for reviews. Giralt planned to have a T.C. meeting in January 1992 to finalize the selection of papers. In the discussion, the AdCom feels that robotics is a large area and would like to urge

Giralt to select a second vice-chairman who has significant experience with our meetings or who has had more of a close involvement with the prior conferences. Menga will relay these two points to Giralt but it's with the understanding that it is Giralt's decision.

Tutorials will be organized as usual. The organization of many workshops could be a way for having more industrial oriented papers. A special room will be requested to the Convention Center for the showing of video-tapes, but no video-session will be organized.

Menga solicited inputs on two issues. The first one is the printing of the Call for Papers announcement and its mailing. Menga would like the Call for Papers printing to be done in Nice and then distributed them out to various "centers" such as IEEE, INRIA, and Chambers of Commerce of Turin and Nice for mailing. Another option is separate printing and mailing in Europe and the US. The second issue is the conference registration — whether to have a separate pre-registration in the US and Europe. This separate pre-registration will save some money-exchange transactions.

Sanderson pointed out that the printing, the make up of the content of the announcement are always in the hands of the General and Program Chairmen. The mailing has always been in the hands of Harry Hayman. However, in the past, Harry Hayman has made up the announcement and had it printed. What is different from our normal practice is that Menga is requesting whether to have it printed in Europe and have it mailed by Harry or have Harry print it and mail it. If printing is done in Europe, there is one possible problem. The European has A4 size which is different from the US 8 1/2 by 11 letter size. Since there is no firm proposal on how to do these things, it was suggested that either Sanderson or Koivo will be in the loop for looking at all of these options, and the final decision will require an approval from the Steering Committee. Questions were raised on the printing of the conference proceedings. Again Menga was asked to evaluate each option, select a cost-effective plan, and obtain final approval from the Steering Committee. On the second issue of pre-registration, the consensus of the AdCom is to have Harry Hayman be the treasurer for the US and the Steering Committee appoint a treasurer for Europe.

- 7.9 Menga requested inputs on the guidelines for improving industrial participation, accepting financial support from industry people, and organizing a large industrial exhibition. Since the organization of the 92 Conference in Europe will cost more than in the States, it is vital that other financial supports be found. In Europe it is easier to get financial supports from the industry than in the States because the European industry is more interested in having a connection with the IEEE. Menga then proposed two motions relating to industrial sponsorship and exhibition.

The first motion is "The AdCom approves, in principle, the acceptance of financial contributions from companies and industry associations toward the support of the 1992 R&A Conference, with the following guidelines: (i) Approximately \$20K for industrial associates, \$10K for large industries, \$5K for small industries. (ii) Listing in announcements and programs will include company name. (iii) Listing as "Financial Contribution" not

"Sponsorship." (iv) No linkage between the contribution and the technical program. (v) No listing of contributors in the conference proceedings, but inclusion in the general conference acknowledgements. (vi) The conference Steering Committee shall approve all contributions."

The second motion is "The AdCom approves, in principle, the development of industrial and research exhibits for the 1992 R&A Conference. Toward this end, an industry association is being approached to underwrite the base costs of the exhibition, and this association will be credited for financial support of the exhibits. Industrial companies will pay specific fee for the exhibit space. The following guidelines are approved: (i) The exhibit shall be budgeted to return a net profit to the Conference. (ii) The exhibit is conducted independently of the technical program. (iii) No one company is permitted to dominate the exhibit. (iv) The Steering Committee shall receive periodic reports regarding the scope and the contents of the exhibits."

These two motions are slight departures from the style of the meeting that the R&A Conferences have done it before. One on industrial sponsorship and the other one on exhibits, and Menga needs some guidelines in order to go ahead with negotiations. They both affect the finances for the Conference.

Menga suggested that for a large contribution (\$20,000 and over), the logo and the name of the company shall appear in all announcements (but not in the proceedings), while others will only have the presence of the name. One of the reasons that companies will contribute is to have their names associated with the Conference prior to the Conference. Menga mentioned that he already had a certain number of industries ready to sign now for participation. Discussions then focused on pros and cons of having company logos on the announcements and/or proceedings. Some AdCom members are willing to have a page in the proceedings in which we acknowledge financial contributions than in putting the name and the logo of these contributors in the contents announcements. Some suggested to have a bulletin board someplace in the Conference with their logos. Some are afraid that we are setting a precedence now, and later some US companies may love to have that tool. An amendment was proposed to strike logos out of the first motion. The first motion with the amendment was seconded and approved.

For the second motion, Menga suggested using an industrial association for underwriting the base costs of and managing the exhibition. The base cost of the exhibition is the specific fee that a company pays for a certain amount of space in the exhibit. The Conference and the exhibit will be held at the Acropolis which has a lot of space for exhibit. The exhibit will be open to people outside the Conference. Some voiced objections of having two separate events at the Acropolis — one conference and one exhibit. However, Sanderson pointed out that since this is supposed to be a European conference, it should be done the way it would normally be done in Europe. The AdCom may be trying to impose all kinds of what might be viewed as US standards or influence on the Conference. With this industrial association for underwriting the base costs of the exhibition, the RAS will not experience any financial loss. After some discussion, the second motion was voted on

and approved.

1993 Conference and Beyond

- 7.10 Sanderson reported that Wayne Book has stepped forward with a preliminary proposal for the 1993 Conference to be held in Atlanta. Book then elaborated on his proposal for hosting the 93 Conference in Atlanta. He indicated that he has done some preliminary work on what kind of conference site could be available. He selected the Hilton which happens to be the site of the first R&A Conference as well. Book is very familiar with this hotel because it was also the site for the 1988 American Control Conference (he was the General Chairman). Book received a preliminary projection of \$95 for the room rate. Although this is not a firm number, he feels that we can probably tie down a rate in that vicinity. Book also mentioned that Atlanta is in the east coast (the AdCom wanted to rotate the Conference back to the east coast) and has some advantages for hosting the 93 Conference such as excellent transportation facilities, very attractive in the spring time, and a large entertainment area near the conference site. Book also indicated that a number of major organizations within the region may come forth with some contribution, contribution of assistance and papers and so on. Finally, Book indicated that the 1988 ACC was a much smaller conference with about 800 attendees, he then solicited opinions/suggestions for completing his proposal to be presented at the next AdCom meeting. Discussions then focused on the hotel facility such as number of rooms available in close together so that people do not have to wander around between paper sessions, other possible sites (Georgia Tech or other major hotels). Book indicated that the 88 ACC had everything on the same floor, sessions and registration; if the R&A Conference is bigger than 88 ACC, then we would have to split up on two different floors. Georgia Tech doesn't have a conference center; Book will explore other hotels as possible conference site.

John Luh, an AdCom member, commented that Bill Gruver of the University of Kentucky had intentions to submit a proposal for hosting the 1993 Conference, but may not have time to finish a proposal for the AdCom to review it. Gruver is interested in hosting the 1993 Conference at the University of Kentucky at Lexington with Luh as the Program Chairman. With no proposal from Gruver at this time, it was suggested that Gruver should be encouraged to continue to explore the possibility of hosting the 1994 Conference, and Book should come up with a budget in more detail at the next AdCom meeting.

A motion was made to conditionally accept Book's proposal for hosting the 1993 Conference in Atlanta subject to reviewing the final conference budget at the next AdCom meeting, and the motion was passed.

- 7.11 Toshio Fukuda presented a proposal for hosting the 1994 Conference in Japan. The Program Chairmen are Professors S. Arimoto and S. Yuta. Fukuda proposed the conference date to be around April 10 (Sunday) to April 16, 1994. The Conference site will be either in Makuhari Messe in Tokyo or Nagoya Congress Center in Nagoya. The Makuhari Messe is located half-way between Narita Airport and the downtown Tokyo (half-hour

drive from Narita Airport or downtown Tokyo); it has many national research centers and universities in its surroundings. Nagoya City, about two-hour drive from Tokyo, has many mechanical industries for robotics and automation, such as Toyota Motor Corp. and Mitsubishi Heavy Industries Ltd. The Conference will provide its attendees opportunities to visit robotics and automation industries as well as research institutes. Fukuda also presented a tentative budget for hosting the 94 Conference in both locations. The bottom-line from his budget indicated that the Conference will have a surplus of about 500,000 yens (US\$3,850) if the Conference is held in Tokyo and a surplus of about 4,500,000 yens (US\$34,600) if it is in Nagoya City. The difference in surplus mainly comes from more expenditures in Tokyo (10,000,000 yens more in expenses with 6,000,000 yens more in income). Fukuda estimated 700 attendees, 100 attendees for workshops and 200 for tutorials. Fukuda would like the AdCom to make a decision or an approval whether to host the Conference in Japan in 1994 or 1995 so that he can proceed with hotel reservation. There were some pros and cons about hosting the Conference in either 94 or 95. Since 94 IROS will be in Europe, it will be good for us to host our 94 Conference in Japan, this will make both the 92 and the 94 Conferences outside the US. If hosting the 95 Conference in Japan, this will provide us two years of conference back in the US. Other major conferences to be held in Japan are 1994 Japan-USA Symposium on Flexible Automation, and 96 CDC will be in Osaka. After some discussion, a motion was made to encourage Fukuda to proceed with the conference in 95, and was seconded. The motion was voted down. After some discussion, another motion was made to support the conference in either 94 or 95 with a follow-up on mail ballot to decide which year. The follow-up mail ballot will ask each AdCom member for his preference for 94 or 95. The motion was seconded and passed. Sanderson will send each AdCom member a mail ballot in January 1991.

Other Conferences

- 7.12 Fukuda presented a request for co-sponsorship of the IROS '92 conference to be held in the US (Raleigh, NC). Previous IROS conferences had been held in Japan. The last IROS conference was in Japan with 400 attendees, 40 people from the US and 60 people from Europe. Fukuda requested that the RAS shares 25% sponsorship, the Industrial Electronics Society will share 50% sponsorship, and the other two societies share the other 25% sponsorship. In terms of dollars at risk to the RAS, it would be 25% of \$72,000. If there is any surplus (deficit), each sponsoring society will split (pay) according to the sponsorship percentage. A motion was made to co-sponsor the IROS '92, and was seconded and passed.
- 7.13 Sanderson presented a request from our Society Chapter Chairman in Chili for providing fund for travel and honorarium for a distinguished lecturer at their organized conference: "IX ACCA Conference and Workshop on Robotic, CAD/CAM, FMS." Sanderson suggested George Bekey who is interested in doing it. A motion was made to send George Bekey as a distinguished lecturer to the above conference and the Society provides about

\$2,500 for his travel and honorarium. The motion was seconded and passed.

8. PUBLICATIONS COMMITTEE REPORT

Kelley, Chairman of Publications Committee, was not able to attend the meeting. He indicated two issues that need to be discussed. The first issue is to request/allocate some travel funds for meetings regarding the Transactions, Newsletter, and Ad Hoc subcommittees. The second issue is to study ways of getting 100% laser printer size mats for the conference proceedings. Due to the limitation of time, both issues/motions were not discussed.

- 8.1 Sanderson asked Klafter to take over the meeting and discuss the co-sponsorship of MEMS journal. Klafter indicated that Fukuda would like to combine the discussion of the sponsoring of the micro-robot in Utah and also the co-sponsoring of the MEMS journal. A 4-page prospectus for an IEEE/ASME journal on Micro-Electro Mechanical Systems was passed out (see Attachment C). The prospectus includes organization of the proposed journal and a budget for 1992, 1993, and 1994. John Jarvis at the last AdCom meeting made a presentation for the journal and requested to form a subcommittee to study this co-sponsorship issue. Bob Kelley was selected to chair the committee. Kelley indicated that he will send George Lee some information if he received it from Bill Trimmer. George Lee did not receive any report on this study. Independently on the subject, Ken Gabriel who is on our editorial board was somewhat opposed having such a journal, while a few other members of our editorial board said they thought it was a good idea. Three sponsoring societies are the IEEE Electron Device Society, IEEE RA Society, and ASME Dynamics and Control Division. The copyright will be held by IEEE. ASME may reuse the copyrighted material without charge. Some AdCom members were puzzled by the budget that in 1993 the member subscriptions suddenly nosedived. Since nobody from the "Journal" was present at the meeting to explain the budget and most AdCom members were puzzled by the budget, after some discussion, a motion was made to table the motion for co-sponsoring the Journal until the next AdCom meeting. The motion was approved with two negative votes. It was suggested that Caplan should contact Bill Trimmer and invite him to our next AdCom meeting to present the case for co-sponsorship.
- 8.2 Russ Taylor, Transactions Editor, reported on the status of the Transactions. Major summaries from his report are: (i) Submissions are down (about 30% down from the previous year), and review process is too slow. (ii) Quality of the Transactions is undoubtedly improved (about 30% acceptance rate). (iii) The editorial board meeting focused on ways to improve the review process. (iv) Some special issues are in the works. Fukuda proposed a special section; Sanderson may propose a special issue on applications which consists of two special sections, one on service robotics and the other on advanced industrial applications; Joe Engleberger and Brian Carlisle liked to propose a special issue. (v) Some discussion on the potential of having a video supplement to the Transactions.

Taylor formed a video committee consisting of Hussan Batide, Peter Luh, and Dick Volz to develop guidelines and study the financial implication. The committee will present a report/proposal at the next AdCom meeting. (vi) By 1992, IEEE is going to electronic publishing.

- 8.3 Roz Snyder, Managing Editor of the Newsletter, was not able to attend the meeting. She submitted a report concerning Vukobratovic/Grujich affair (see Attachment D).

9. BRIEF REPORTS FROM TECHNICAL COMMITTEES

- 9.1 Due to the limitation of time, the Chairman of each Technical Committee did not give a brief report.

10. INDUSTRIAL ELECTRONICS SOCIETY CHANGE OF FIELD OF INTEREST

- 10.1 Sanderson reported that the Industrial Electronics Society (IES) has proposed to the TAB to change its field of interest statement. They want to change from their current field of interest statement: "The application of electronics and electrical sciences to industrial processes" to the proposed field of interest statement: "The application of electronics and electrical sciences to industrial processes, particularly as it applies to factory automation, including robotics, vision and sensors, signal acquisition and processing, systems and control in power electronics, and systems and applications of automatic controls." (Note: the field of interest of RAS can be found in RAS Constitution, Article II, Section 1.) In practice what they want to do is include specifics in a way that will attract more membership. At the last TAB meeting, Sanderson objected to this change of field of interest, and the motion for change was tabled pending discussion with the various societies which have an interest in this issue. Besides the RAS objecting to the change, there were at least two other societies objecting to the change at the last TAB meeting. Other societies had objected to the wording of robotics automation, signal processing, systems and control, industrial applications, and power electronics. Sanderson would like the AdCom to provide some direction/instruction for Norm Caplan to act on this motion at the next TAB meeting. Caplan will be representing the RAS in the next TAB meeting to cast a vote. The constructive step here is that we can vote no and Norm can follow that and vote no at the next TAB meeting in February. The alternative is to suggest some changed language that would be satisfactory or acceptable terms of the relationship of the two societies.

A motion was made that the wording of the proposed field of interest of the IES is not acceptable. The motion was seconded and passed.

A second motion was made that the President of the Society should solicit comments and propose amended language in consultation with the members of the AdCom. The motion

was seconded and passed. Due to the limitation of time, Sanderson will consult with some AdCom members to draft appropriate amended language for Caplan to present at the next TAB meeting.

11. EDUCATION COMMITTEE REPORT

Khosla, Chairman of Education Committee, was not able to attend the meeting. He submitted his brief report through e-mail to George Lee.

- 11.1 There will be a special session (panel discussion) on Robotics Education at the 1991 R&A Conference. Khosla expects this to be an annual affair for the next couple of conferences. His goal in holding these panel discussions is to start a discussion in the community about robotics education and get as many people as possible thinking about it.
- 11.2 At the last R&A Conference, Desrochers had proposed streamlining the handling of tutorials and workshops. He had suggested that Education Chairman handles this. Khosla will be happy to do so but needs a definitive answer on what the final decision was. It is too late for Khosla to handle the tutorials in the 1991 R&A Conference because Hsia had already asked somebody else to do it.

12. STANDARD COMMITTEE REPORT

- 12.1 Report on the activities of Standards Committee was submitted by Haynes (see Attachment E).

13. OTHER BUSINESS

Sanderson indicated that there are other action items that the AdCom has to decide on.

- 13.1 Sanderson reported that Antti Koivo has volunteered as a society liaison to the IEEE Press. He will make that appointment if there aren't any objections.
- 13.2 Sanderson reported on his finding on the special conference registration (i.e., reduced conference registration fee for participants from developing countries). IEEE has some discount policy for membership (i.e., discounts for membership for people who show their income is below such and such). But they indicated that they did not want to do that for registration. They do not want to set a fee structure other than for students. And they recommend that if we choose to do that, we do it with some arrangements on an individual basis. So Sanderson suggested that that's the way we should proceed. On an individual basis, people can write a letter to the general chairman and the general chairman, within his conference budget, can give a

kind of student registration fee to participants from developing countries.

- 13.3 It was brought up at the TAB meeting that plans are being developed to hold a colloquium in Europe in early October 1991. The TAB is very interested in international initiatives. The purpose of the colloquium is to develop relationships, chapters, and membership in Europe, emphasizing new ties to eastern Europe. The proposed colloquium would include a TAB meeting in October 1991 in Milan, then the colloquium will then visit other countries in eastern Europe (may include countries like the Soviet Union, Poland, Hungary, Rumania, Czechoslovakia, Greece, Turkey, and Israel). The colloquium would request financial support from the Society for Society President's travel to the TAB meeting in Milan; the colloquium and the IEEE will pick up the rest of the travel expenses in Europe. A motion was made to pay, not to exceed \$4,000, for our Society President to attend the 1991 IEEE Colloquium in Europe. The motion was seconded and passed.
- 13.4 Meeting adjourned at 7:23pm.
- 13.5 Next Meeting: Monday, April 8, 1991, at the Hyatt Regency Sacramento, Sacramento, CA, at the call of President Caplan. Time will be announced after David Orin, our new Secretary, consulted with Norm Caplan.

1989 Membership

	Jan-90	Feb-90	Mar-90	Apr-90	May-90	Jun-90	Jul-90	Aug-90	Sep-90	Oct-90	Oct-89
STUDENT	1332	1292	1370	1383	1357	1324	1355	1416	1188	1302	1046
REGULAR	4578	3720	4029	3816	4094	4290	4396	4464	4793	4839	4921
RET/UNEMP	93	74	79	75	76	76	77	78	83	85	94
AFFILIATE	142	84	88	82	85	87	87	87	89	90	144
TOTAL	6145	5170	5566	5356	5612	5777	5915	6045	6153	6316	6205
% of IEEE	1.78	1.75	1.76	1.72	1.73	1.75	1.76	1.79	1.8	1.82	1.83
ARREARS	2280	2355	2196	2245	2155	2112	2073	2084	2067	2061	1902
ACT /ARR											
R&A	0.37	0.46	0.39	0.42	0.38	0.37	0.35	0.34	0.34	0.33	0.31
CS	0.25	0.35	0.29	0.33	0.31	0.29	0.28	0.28	0.27	0.26	0.25
SMC	0.23	0.32	0.26	0.29	0.27	0.25	0.24	0.24	0.23	0.23	0.24
IE	0.36	0.45	0.41	0.49	0.41	0.37	0.35	0.35	0.34	0.34	0.25
COMP	0.15	0.32	0.25	0.27	0.24	0.23	0.22	0.22	0.22	0.21	0.19
TOTAL	0.19	0.31	0.25	0.27	0.25	0.24	0.23	0.23	0.23	0.22	0.2

Region/Society Distribution

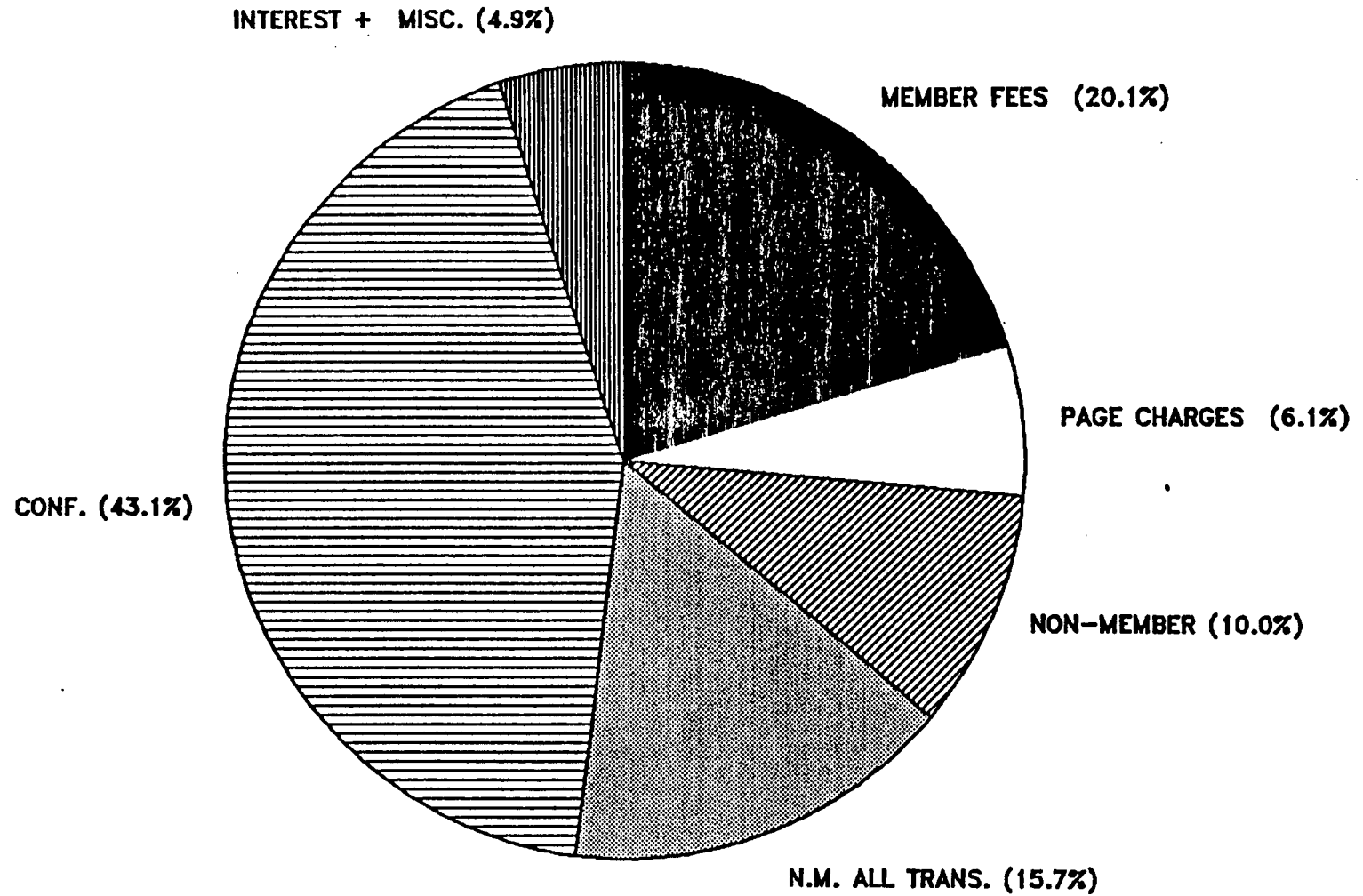
		87 IEEE	88 IEEE	89 IEEE	89 RA	89 CS	89 SMC	89 IE	89 C
Region 1	Northeastern US	18.1	17.5	17	12.6	11.6	13.4	11.5	16.7
Region 2	Eastern US	13	12.7	12.5	10.1	10.6	11.7	8.9	11.3
Region 3	Sotheastern US	10.7	10.7	10.7	7.8	8.9	6.7	8.8	8
Region 4	Central US	9.5	9.3	9.1	9.6	10.6	7.2	10.7	8.4
Region 5	Sothwestern US	9.4	9.3	9.1	6.9	6.9	5.7	5.8	8.4
Region 6	Western US	19.5	19.3	19	15.7	15.6	14.7	10.9	19.7
Regions 1-6	US	80.2	78.8	77.5	62.7	64.2	59.4	56.7	72.5
Region 7	Canada	5.1	5.1	5.2	6.6	5.3	4.6	6.9	5.3
Region 8	Europe/Mideast/Africa	6.1	6.6	7.2	14.5	15.1	17.5	15.75	10.6
Region 9	Latin America	2.1	2.2	2.5	3.9	3.3	2.6	4.9	2.2
Region 10	Asia & Pacific	6.5	7.3	7.6	12.3	12.1	15.9	15.75	9.4
Regions 7-10	Non US	19.8	21.2	22.5	37.3	35.8	40.6	43.3	27.5

Region/Grade Distribution

		F	SM	M	A	S	TOTAL
Region 1	Northeastern US	26	19.3	17.4	20.3	12.4	17
Region 2	Eastern US	15.3	14.9	12.8	12.2	9.8	12.5
Region 3	Sotheastern US	9.9	12.9	10.4	9.3	11.5	10.7
Region 4	Central US	6.8	8.2	8.9	8.2	11.2	9.1
Region 5	Sothwestern US	5.9	8.3	9.6	7.2	9.4	9.2
Region 6	Western US	20.4	19.8	20.7	17.9	12.2	19
Regions 1-6	Total US	84.3	83.4	79.8	75.1	66.5	77.5
Region 7	Canada	3.1	3.7	4.7	6.9	7.3	5.2
Region 8	Europe/Mideast/Africa	6.9	6.2	6.7	9.4	8.5	7.2
Region 9	Latin America	0.3	1.3	1.7	2.1	6.5	2.5
Region 10	Asia & Pacific	5.3	5.4	7.1	6.5	11.2	7.6
Regions 7-10	Non US Total	15.7	16.6	20.2	24.9	33.5	22.5

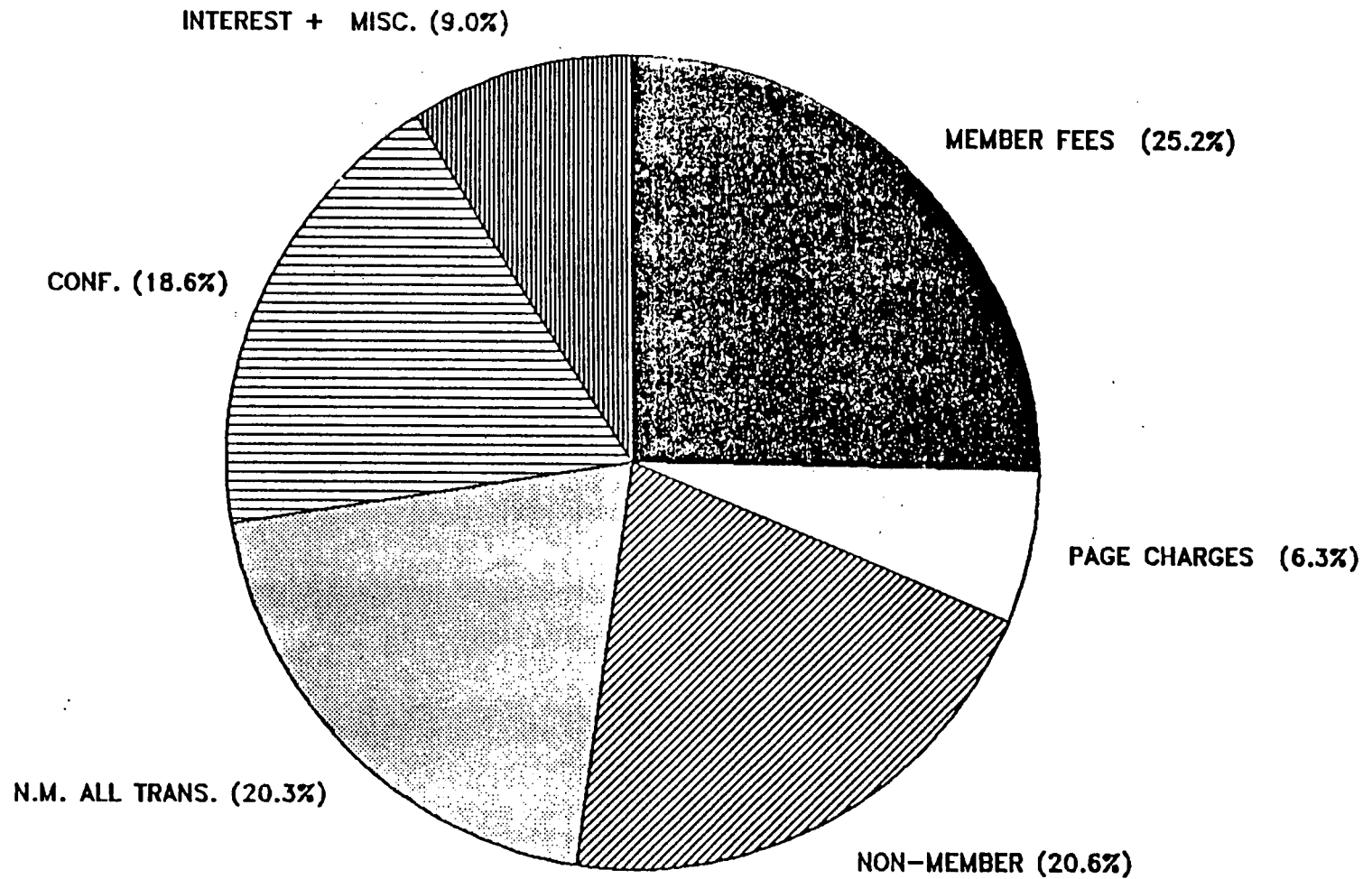
ITEM	BUDGET 1990	ACTUAL 9/30/90	BUDGET 1991
1. MEMBER AND AFFILIATE COPIES	5334	4542	4989
2. STUDENT MEMBER COPIES	583	1415	949
3. INDIVIDUAL NON-SOCIETY COPIES	387	507	450
4. IEEE NON-SOCIETY AND MEMBER	0	0	0
INCOME (\$1,000)			
5. MEMBERSHIP FEES	\$89.0	\$80.6	\$95.8
6. INDIVIDUAL NON-MEMBER SUBSCRIPTIONS	\$44.0	\$66.1	\$55.8
7. NON-MEMBER ALL TRANSACTIONS	\$69.4	\$64.9	\$66.5
8. PAGE CHARGES	\$27.0	\$20.3	\$37.6
8A. VOLUNTARY PAGE CHARGES	\$9.0	\$6.3	\$11.5
8B. EXCESS PAPER LENGTH	\$18.0	\$14.0	\$26.1
9. CONFERENCES	\$190.6	\$59.6	\$205.7
9A. 89 R & A CONFERENCE		\$42.8	
9B. 89 MEMS CONFERENCE		\$16.8	
10. MISCELLANEOUS INCOME	\$9.7	\$10.3	\$8.0
11. INTEREST	\$12.1	\$18.4	\$12.1
TOTAL INCOME	\$441.8	\$320.2	\$481.5
EXPENSES (\$1,000)			
12. TRANSACTIONS [INCLUDES EDITOR EXPENSE=36k]	\$226.4	\$128.6	\$234.5
13. NEWSLETTER	\$34.0	\$11.7	\$35.0
14. MSC. PERIODICAL EXPENSE	\$6.1	\$4.4	\$8.0
15. CONFERENCES	\$186.2	\$9.2	\$202.6
16. MSC. EXPENSES :	\$0.0	\$2.9	\$0.0
17. MSC. IEEE EXPENSES	\$6.4	\$16.5	\$12.5
18. AD COM	\$14.5	\$6.3	\$14.5
TOTAL EXPENSES	\$473.6	\$179.6	\$507.1
19. SURPLUS FOR THE YEAR	(\$31.8)	\$140.6	(\$25.6)
20. NET SURPLUS [\$374.7 AS OF 12/31/89]	\$342.9	\$515.3	\$349.1
ADDITIONAL INCOME [ESTIMATED]			
21. 90 MEMS WORKSHOP - LOAN		\$21.0	
22. 90 R & A CONFERENCE		\$215.6	
23. TOTAL ADDITIONAL INCOME [ESTIMATED]		\$236.6	
ADDITIONAL EXPENSES TO 12/31/90 [ESTIMATED]			
24. TRANSACTIONS		\$60.0	
25. EDITOR EXPENSES		\$55.0	
26. 90 R & A CONFERENCE		\$147.8	
27. AD COM [MSC TRAVEL EXPENSES + CONTEST]		\$18.4	
28. TOTAL ADDITIONAL EXPENSES [ESTIMATED]		\$262.8	
NET ESTIMATED SURPLUS - 12/31/90		\$489.1	

1990 - BUDGETED INCOME



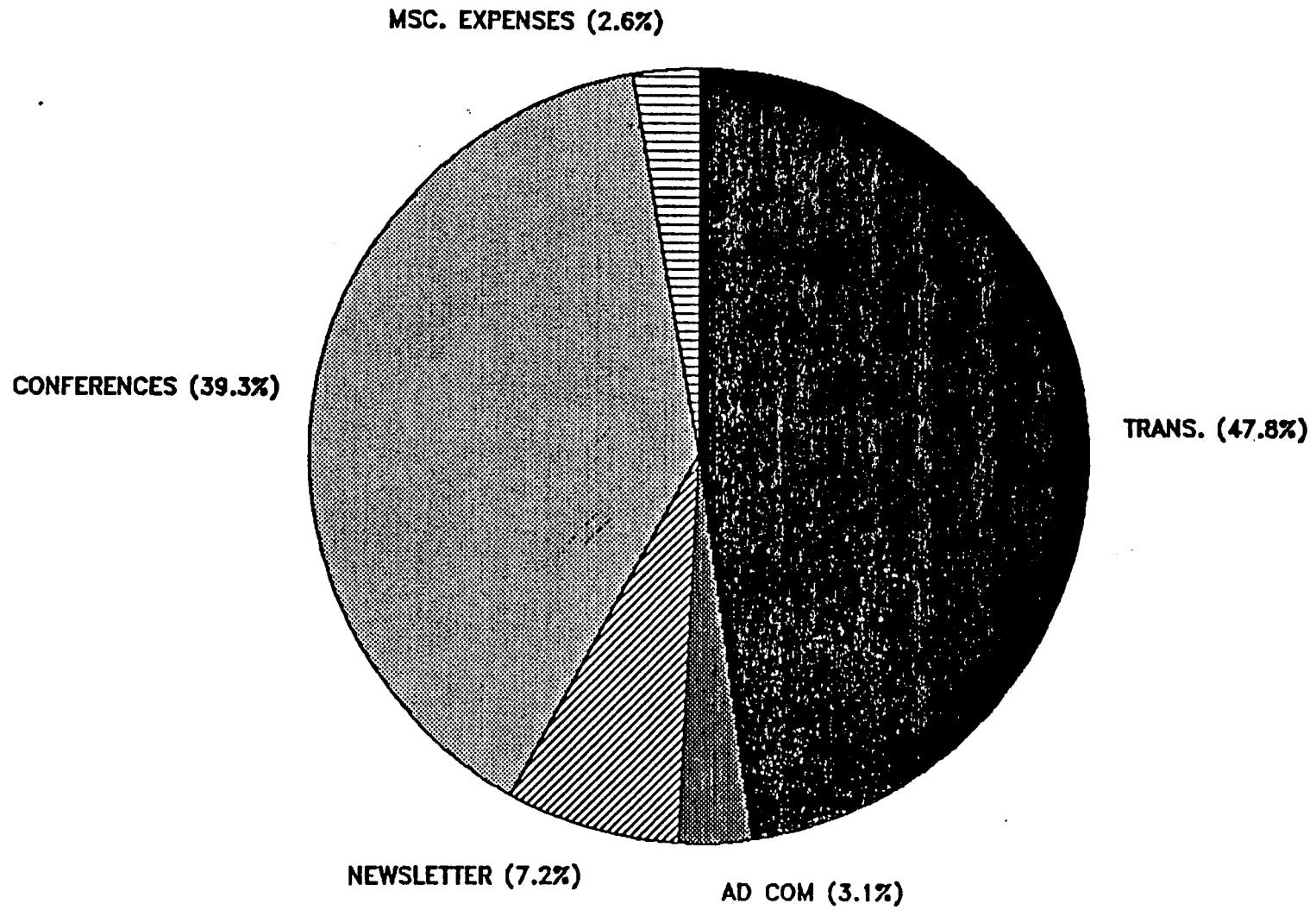
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ACTUAL INCOME - 9/30/90

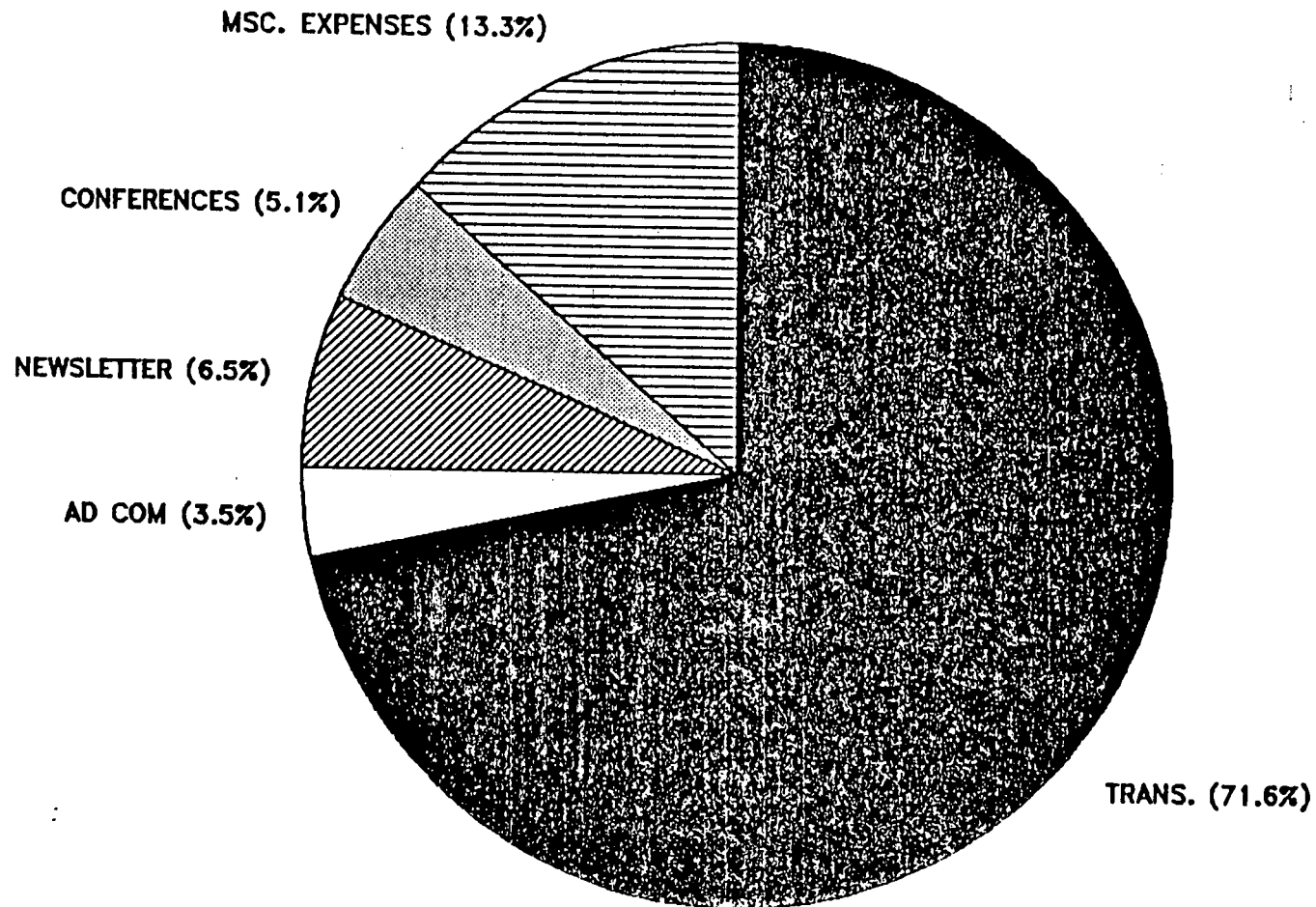


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1990 - BUDGETED EXPENSES

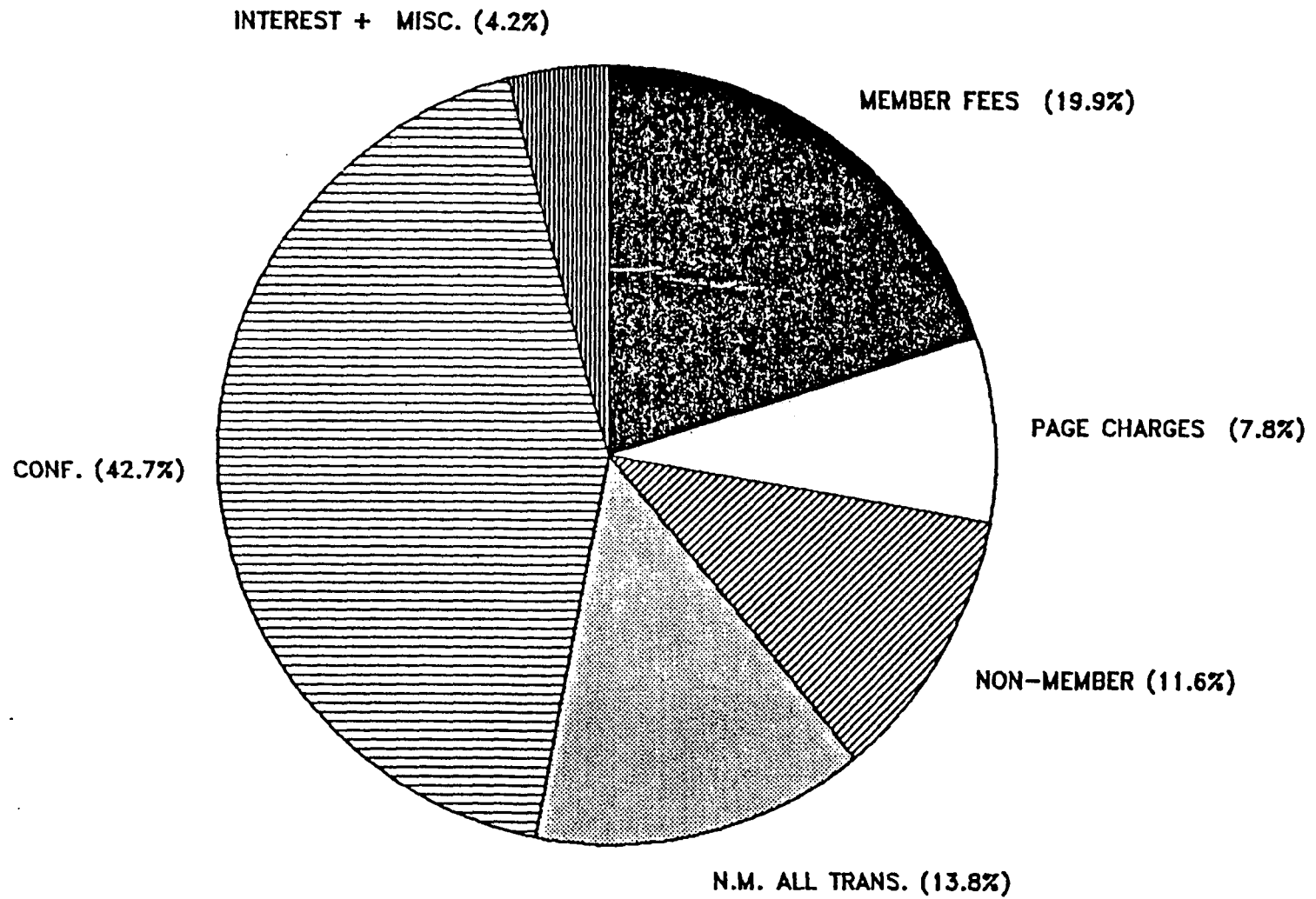


ACTUAL EXPENSES - 9/30/90



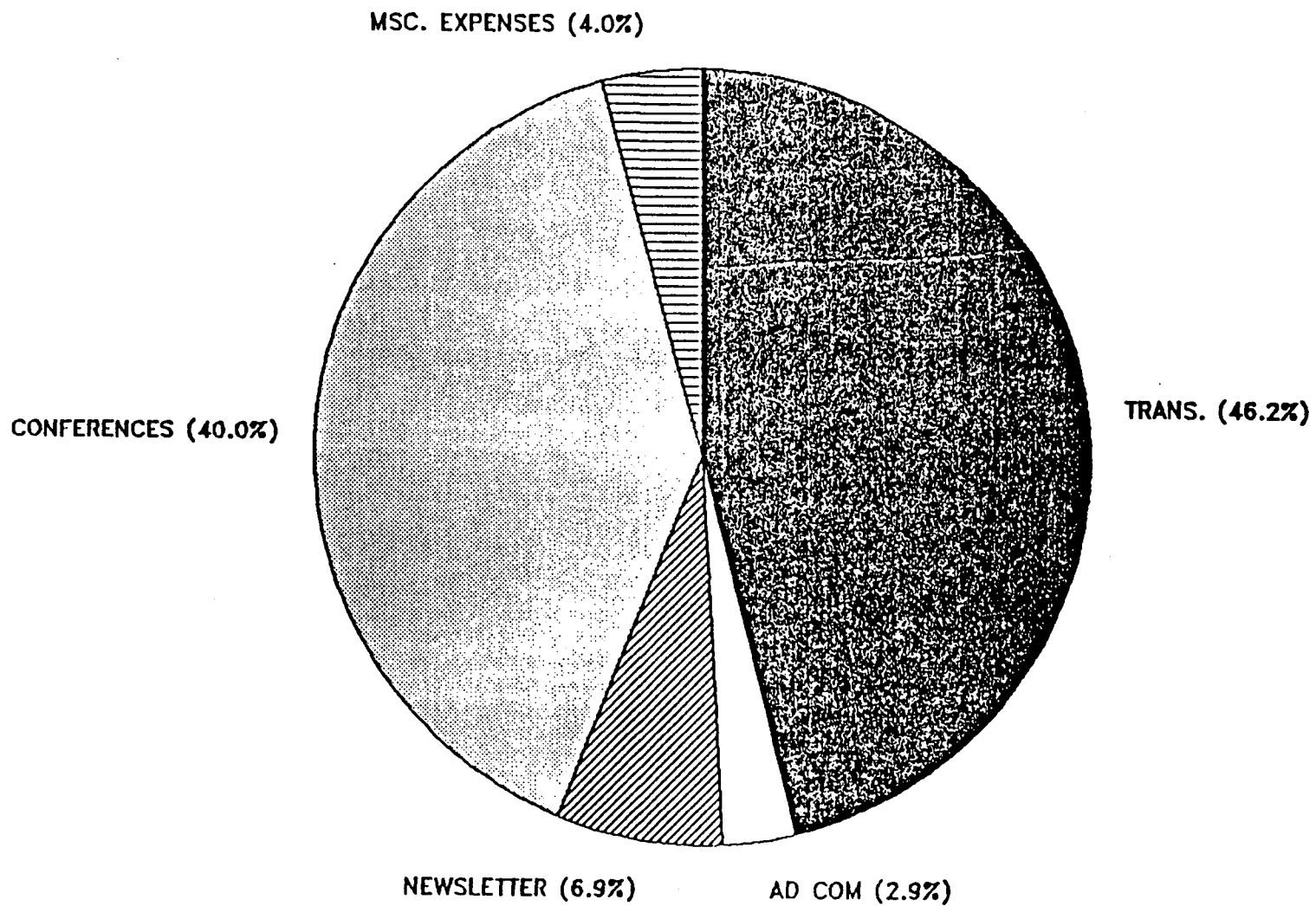
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1991 - BUDGETED INCOME



per 6/7

1991 - BUDGETED EXPENSES



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**A Prospectus of an IEEE / ASME Journal on
Micro Electro Mechanical Systems**

The micro electro mechanical field is rich in diversity, drawing on many disciplines. A joint publication by the societies active in this area can provide a common place to publish, where people can read a range of papers without having to search through unfamiliar journals. The proposed journal will be priced so members of the societies can purchase individual subscriptions. Also important is providing a base of referees that have the expertise necessary to review papers in the diverse fields covered by the Journal.

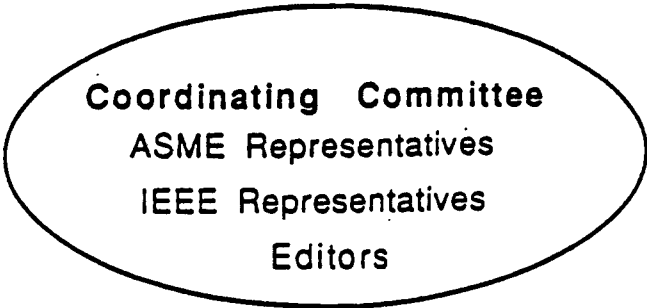
To meet the planned publication date of January 1992, the three sponsoring societies need to approve the Journal during their meetings in November and December 1990. The Coordinating Committee and editors will meet at the Micro Electro Mechanical Systems Meeting in Nara Japan in early February 1991. And by summer 1991 papers will be accepted, and the subscription details ready for mailing by the societies. The three sponsoring societies are the IEEE Electron Device Society, the IEEE Robotics and Automation Society, and the ASME Dynamics Systems and Controls Division. The copyright will be held by the IEEE. The ASME may reuse the copyrighted material for their own purposes without charge by the IEEE.

The finances of the journal are shown in chart 1. The expenses are publication costs, fulfillment costs, and other costs such as editorial support. The income is from member subscriptions, page charges, and from the All Transactions Package. The first year the Electron Device Society is planning purchase copies of the journal and distribute the journal free of charge to its members. Also under consideration is allowing members of the ASME and IEEE, who are not members of the above three founding societies, to purchase subscriptions. To help the financing of the journal start up during 1991, each society is requested to loan the Journal's Coordinating Committee five thousand dollars. This loan will be repaid in 1992 and 1993.

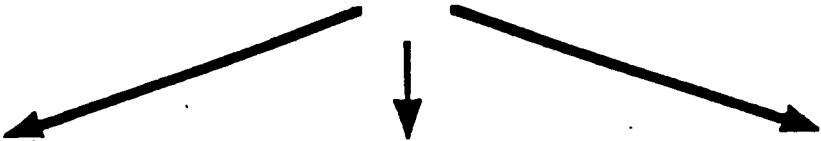
The organization chart for the Journal is shown in figure 2. The Coordinating Committee is composed of representatives from the member societies, and the editors. Their responsibility is to set the budget, and select the Editor Elect who becomes the Editor-in-Chief after the term of the present Editor-in-Chief. The Editor-in-Chief is in charge of day-to-day business. The Subject Editors will handle paper reviews, and the Associate Editors will help their Subject Editors. (The Journal of Lightwave Technology, an IEEE and OSA publication, was used as a model for organizing our Journal.)

Both attendance at the MEMS workshop, and the number of MEMS related pages published has increased by a factor of about 1.7 each year. The first MEMS workshop in November 1987 (called Micro Robots and Teleoperators Workshop) had 96 people attend. The Utah MEMS had 160 attendees, and the Napa MEMS had 260 attendees. In November 1987 there were about 200 pages of technical material published in this field. A listing of 600 pages of material published in 1990 is given in the appendix. There are a number of publications not included in this list. By 1992, it is expected there will be in excess of a 1000 pages per year published. The ideal of a joint IEEE / ASME journal has been very well received, and we will be in a position to accept only the cream of these papers. The first year we are planning to publish four issues, each containing 80 pages.

Following this prospectus is the original memo from Richard Muller suggesting this journal, a list of the editors who will be recommended to the Coordinating Committee, the financing for the first three years, the legal documents defining the journal and its structure, and a list of the material published in this field during 1990.



Editor in Chief
Editor Elect



Subject Editors

Subject Editors

Subject Editors

Associate Editors
Associate Editors

Associate Editors
Associate Editors

Associate Editors
Associate Editors

Budget for 1992, 1993, and 1994

Budget Items	1992	1993	1994
Expenses:			
Costs for printing (CP\$)	\$72.3 k	\$52.9 k	\$81.0 k
Fulfillment Costs	\$ 4.3 k	\$ 3.8 k	\$ 3.8 k
Other	\$16.0 k	\$17.0 k	\$14.0 k
TOTAL COSTS	\$92.6 k	\$73.7 k	\$98.8 k
Income:			
Member subscriptions	\$42.0 k	\$17.0 k	\$28.0 k
All Transaction Subscriptions	\$39.8 k	\$39.7 k	\$49.7 k
Page charges	\$20.0 k	\$20.0 k	\$30.0 k
TOTAL INCOME	\$101.8 k	\$76.7 k	\$107.7 k
Profit:			
NET INCOME	\$ 9.2 k	\$ 3.0 k	\$ 8.9 k
Income - Costs			

Memo

TO: AdCom
FROM: Rosalyn Snyder
: Nov. 30 1990
DATE: Vukobratovic/Grujich affair
RE:

We received a review of a book *The Fourth Genius* by Prof. Marko Veshovich, a former Ph.D. student of Prof. M. Vukobratovic, one of the leading members of the academic establishment of Yugoslavia and director of the Mihajlo Pupin Institute. Prof. Veshovich asserts that a large part of Prof. Vukobratovitch's published work in robotics has been flagrant plagiarism.

The review was too long (about 30pp) for publication and we requested a briefer version before we would even consider it. After receiving the abbreviated version we sent it to Prof. Vukobratovic for his response. We received from him a vehement statement that all charges are "lies and filthiness about my work and that [of] one of my closest associates" and several pages of testimonials about his work and character by various associates.

Before receiving Prof. Vukobratovic's correspondence my thought was to publish the review and Prof. Vukobratovic's response together and let them stand on their own merits. However his response, which addresses few of the specific charges in the book, is far too long to publish. *(Also, both he and the reviewer have such difficulties with written English that I had difficulty in understanding precisely what they were saying, and given the sensitivity of the subject matter I would be loath to attempt to edit either one.)*

Also, most of the books, articles and theses referred to were published in Europe, generally in Russian or Serbo-Croatian, so that it would be impossible for most of our readers to assess the merits of the charges or rebuttal. In addition the dispute is currently in the Yugoslavian courts. The Yugoslavian dispute also appears to involve long-standing personal and perhaps political and ethnic issues which are not appropriately aired in our forum.

However, I am not sure you should ignore these charges altogether. The issue of academic ethics is an important one, and one could argue that it is the responsibility for the leading society in the field to address it here. For instance, in his justification for (apparently) publishing a book with Springer Verlag as a new book rather than as a translation, Vukobratovic states that

This book is similar to the book *Dinamika manipulacionih robota u realnom vremenu* published in Serbo-Croatian by Mihailo Pupin Institute in 1984. The latter book is not identical to Springer-Verlag's book. Section 1.3.3 in Springer-Verlag's book do not exist in Serbo-Croatian book. Thus, these books are different. Anyway, we enclose the statement that Mihailo Pupin does not hold copyrights in this book.

MEMO

The absence of a copyright does not justify wholesale appropriation, as Prof. Vukobratovic seems to imply.

It seems we have the following options:

1. Publish the review and Vukobratovic's letter (a total of about 6 typed pages).
2. Include a brief article such as the one following stating that the book has been published, its allegations have been denied, and the issue is in the Yugoslavian courts.
3. Include one or more editorials addressing the issue of scholarly ethics in general, the obligations of authors to recognize their sources, the issue of translations, etc. which might allude to the Vukobratovic affair or for that matter, to the charges of plagiarism recently made about Martin Luther King, Jr.
4. Ignore it, writing Grujik and Vukobratovic that the issue is not suitable for publication in this forum for the reasons given above.

***Glasnost* Reaches the Robotics Community**

Some months ago we received a review of a book by an expatriate eastern European scholar which alleges that one of the leading members of the academic establishment of the author's home country, has been guilty of flagrant plagiarism throughout his career. We sent a copy of the review to the subject of the book, who categorically denied all charges. Since most of the works in question were not published in English and the dispute is currently in litigation the AdCom determined that neither the review nor the rebuttal were appropriate for this forum.

In an open scientific community, one cannot build and maintain an academic based solely or even primarily on the work of others. Similarly, frivolous attempts to damage the reputations of others, whether based on professional jealousy or personal vendetta, shrivel away in an atmosphere of free and public discussion.

Normally time rectifies most abuses even if they never reach the courts, which most don't. Students and junior colleagues eventually gain their independence, establish their own reputations, and attain positions where they themselves are reviewing their former mentor's newer efforts and claims. .

Therefore, outright plagiarism is rare. Most scholars are conscientious about acknowledging their published and unpublished sources and collegial participation, particularly, in engineering where very few developments are arrived at by a single individual. Disputes, whether published in *Letters* sections or aired at conferences, seldom sink to the level of personal insults.

As scholars in eastern Europe gain more opportunities to travel and work in the West, and perhaps even more important, as they gain access to personal computers, fax machines and photocopiers, we may hope that they will become increasingly included in the worldwide community of research and ideas.

Publication Details

The newsletter came out 4 times in 1990, with a total of 72 pages. The last mailing was about 6300.

Scanner/Fax

The IEEE has acquired additional electronic publishing equipment including the ability to accept PostScript files and print them on a high resolution (1200 bpi) printer. Currently photographs and ads which we receive camera-ready would still have to be stripped in.

I am actively investigating the options for a fax machine and a scanner. Fax machines range from about \$400 up, with the low end of an office machine about \$1200.

A scanner begins at about \$1000 and gives 300 bpi resolution, which would not be acceptable for photographs. The salesman said he believes that a combination of a scanner and fax software to combine with my modem and laser printer is available for \$1500-1800.

We are considering the purchase of a minimal fax machine with or without a scanner. However in the meantime, faxes can be sent to me either care of Wes Snyder at 919-748-2100 or to me, care of Office Solutions 919-834-3029 (be sure to mark these with my address and home number 919-851-1433).

Newsletter Subscriptions

We occasionally receive requests from individuals and institutions who wish to purchase subscriptions to the Newsletter by itself. I have not been able to find any means for doing this other than setting a subscription price of about \$20 and maintaining a list and mailing them separately each quarter. Given that membership in the society is \$15, that seems pointless for individuals. If you want to have the newsletter sent to all institutional subscribers to the Transactions, we could probably do this.

E-mail Publication

Timeliness of calendar items is a continuing problem with quarterly publications. It has been suggested that we send out the Calendar via e-mail, either quarterly, monthly, or as items come in. This would not be extraordinarily difficult.

I keep a master list of the people who have submitted e-mail addresses to our directory. I also have a .mailrc file called "robots" which includes about 60 names, all these people and other people whose address I have but who have not requested inclusion in the directory. Every quarter I send out a request for newsletter contributions to all "robots". I've been working on cleaning this up (correcting or eliminating bad addresses). We could give people the option of sending their e-mail address and getting on my "robots" list to receive calendar items without getting in the public directory (people have mixed emotions about publicising their e-mail addresses. Given the occasional unreliability of e-mail we shouldn't eliminate the hard-copy calendar nor should we give any guarantees. Sometimes it works, sometimes it don't.

Sending the calendar items would not be too difficult.

IEEE Robotics and Automation Society

Standards Committee Report

December 8, 1990

prepared by Leonard S. Haynes, Ph.D.
Chairman, Standards Committee

1. IEEE Robotics and Automation Society Standards Committee

The first meeting of the Robotics and Automation Society Standards Committee was held on May 24, 1990 at the National Institute of Standards and Technology. The meeting was coordinated with all persons expressing interest in the IEEE R&AS Standards Committee, and with all of the key standards committees whose work might impact the interests of the Robotics and Automation Society. The meeting was also advertised at the Computer Integrated Manufacturing Conference held at NIST just before our meeting. Attendees were:

Dr. John Mills, NGC Program (Martin Marietta)

Dr. Leonard S. Haynes, Chairman, IEEE Robotics and Automation Society
Standards Committee (IAI)

Dr. Juan Pimemtel, Chairman, IEEE Industrial Electronics Society Standards
Committee, (GMI)

Mr. Donald Schlegel, Chairman, Electronic Industries Association IE-31 (Okuma)

Dr. Nicholas Dagalakis, Chairman, RIA R15.05, Robot Performance Measures
Standards Committee, (NIST)

Mr. Ken Goodwin, National Institute of Standards and Technology,
Leader of the Robot Systems Division Robot and Machine Tool
Control Standards Activities

Mr. Walter Kozikowski, ISO/TC184 TAG Administrator (NEMA)

Mr. John Bloodgood, TAG Chairman, TC184/SC1 (JFB and IAI)
TAG Chairman, TC184/SC5

Mr. Bradford Smith, Chairman, ISO/TC184/SC4 - Manufacturing Data and
Languages (NIST)

Four other attendees were "walk-ins" from the CIMCON conference held at NIST,
ending at noon on May 24.

The meeting had two primary purposes. The first purpose of the meeting was to discuss and comment on the Air Force's Next Generation Controller Project (NGC), and Dr. John Mills of Martin Marietta Corporation gave a presentation on NGC. The meeting was quite useful in determining which existing standards, or standards nearing completion, are relevant to NGC. The second purpose of the meeting was to discuss the most significant

ongoing standardization efforts which need to be tracked, and inputs provided in cases we do not agree with features of standards out for ballot.

In collaboration with our meeting, the Robot Systems Division at the National Institute of Standards and Technology gave a small contract to JFB Enterprises to produce a document summarizing current standardization efforts which relate to intelligent robots. Copies of that report can be obtained from Mr. Ken Goodwin at NIST, or from the R&AS Standards Committee.

2. Overview of the Key Ongoing Standardization Efforts

The most important standardization efforts now underway, and that will be reviewed by members of the R&AS Standards Committee at the appropriate time are:

Real-time POSIX	JTC 1 / SC 22 / WG 15 N679
Digital Data Link for Motion Control	IEC / TC44
Manufacturing Message Service Companion Standard for Programmable Logic Controllers	IEC / SC65A
Manufacturing Message Service Companion Standard for Robots	IEC / SC65A
Intermediate Code for Robots	TC184 / SC2
PDES / STEP Produce Data Exchange Specifications	ISO/TC 184/SC 4
Dynamic Robot Performance Measures	RIAA R15.05
Computer Integrated Manufacturing Open System Architecture (CIMOSA)	CEN/CENELEC WG-ARC Working Group This work may also be picked up by ISO.
Next Generation Controller	AF project initially developing consensus standards independent of ANSI or ISO
NASREM	NASA/NIST standard reference architecture for robot control (being done independent of ANSI or ISO)

Much more detailed information can be obtained by contacting Dr. Leonard S. Haynes, Chairman, R&AS Standards Committee.

3. SCC20 Meeting

Dr. Leonard Haynes attended the IEEE Standards Coordinating Committee 20 (SCC-20) meeting held in Fort Lauderdale in November. He did not attend as the formal representative of the Robotics and Automation Society because such representation had not been approved by the ADCOM, and furthermore, such formal representation was not necessary. The Robotics and Automation Society was listed "for coordination" on one new project authorization request (PAR).