# History of the

# INTERNATIONAL ASSOCIATION FOR PATTERN RECOGNITION

*From its founding in 1973 to 2008*

The history of The International Association for Pattern Recognition presented here consists of two parts. The first, based on a report[1] prepared by Professor C.J.D.M. Verhagen of the Netherlands and slightly revised to shorten it and have it conform to modern style usage, covers the years from the founding of the predecessor of the Association (the International Joint Conference on Pattern Recognition) in 1972, through the founding of the Association in 1976, up to 1983. In many ways it can be regarded as "laying the foundation" for IAPR. It does this in a most thorough manner. The second part, much less detailed, was prepared by Professor H. Freeman of the U.S.A. with the assistance of many IAPR individuals, in particular, the IAPR Secretariat and members of the Advisory Committee, and covers the period from 1983 to 2008.

# Part I

## History of the Founding of the
## International Association for Pattern Recognition - 1973-1983[1]

## 1. Introduction

The history of the founding of the "International Association for Pattern Recognition" (IAPR) may be of interest to generations of pattern recognizers, especially to those who were not themselves involved in its founding. The history of its founding was written in the first half of 1983. At that time, there were still many persons active in IAPR who had been with it since its birth. But, say ten or twenty years later, many "old timers" will have retired or have died and new generations will have taken over. It will then be difficult to unearth all the facts of the past. For this reason we present here a review of the history of the founding of IAPR. The history is given as a "summary", with many fine details omitted. The titles and affiliations of persons were also left out because they tended to change with time, making it impossible to use the right ones at the right moment.

## 2. The First Initiative

Around 1970, several organizations set up a large variety of conferences and workshops with programs completely or partially devoted to topics in the area of pattern recognition and related applications, resulting in an unsurveyable situation as to the pattern recognition field. An attempt to incorporate pattern recognition into the artificial intelligence field broke down at the 2nd International Joint Conference on Artificial Intelligence in London in 1971. This motivated K.S. Fu, during a gathering organized by the National Science Foundation of the U.S.A., to invite several persons in order to set up a committee for organizing an international conference on pattern recognition, with a joint membership from different areas such as the IEEE Computer Society, the Artificial Intelligence community, etc.

## 3. The First Meeting of the Committee for the "First International Conference on Pattern Recognition"

The first meeting of the Committee for the "First International Conference on Pattern Recognition" was held at Airlie House, Warrenton, Virginia, U.S.A., 25 February 1972. Present were: K.S. Fu, C.K. Chow, R.O. Duda, S. J. Dwyer, H. Freeman, L.N. Kanal, R.S. Ledley, A. Rosenfeld and M.W. Watanabe. According to the minutes recorded by R.S. Ledley:
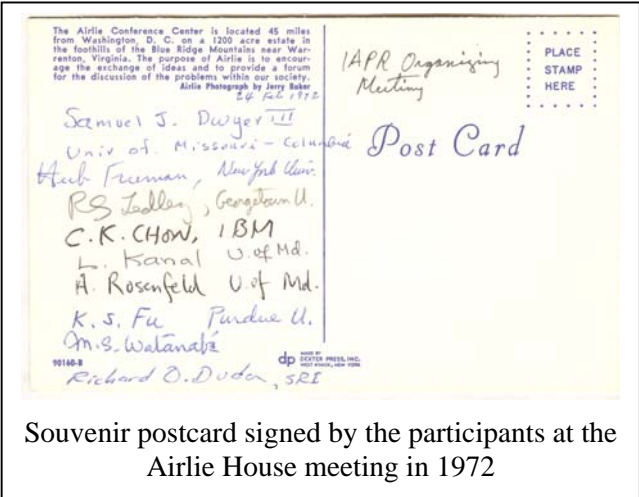
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[1] C.J.D.M. Verhagen, "History of the Foundation of the International Association For Pattern Recognition - IAPR," Third Draft, February 1984, privately published report available in paper and in PDF format. This report is strongly recommended for persons wishing to learn about the formation and startup of the International Association for Pattern Recognition.

"It was agreed by all present that there is a need for an international joint conference on pattern recognition, including picture processing, in order to bring together a single forum for papers in this area. It was pointed out that, at the present time, such papers are presented in a large variety of conferences and, therefore, the results presented in these papers are difficult to obtain. The members present hoped that the joint conference on pattern recognition would be co-sponsored by all the professional societies with interest in pattern recognition and its applications."

It may be noted that the word "joint" was used (then and later) to indicate that it was the intention that other professional societies would join to co-sponsor the conference. The sponsorship could be in name only; that is, without financial commitment.

It was agreed at the meeting to hold the First International Joint Conference on Pattern Recognition (IJCPR) in Washington, D.C., around November 1973. A United States group of 14 persons was nominated to the conference committee, and 18 possible foreign members were suggested. The following officers were elected to organize the First IJCPR:

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| *Chairman* | K.S.Fu |
| *Vice Chairmen* | H. Freeman and C. K. Chow |
| *Secretary* | R.S. Ledley |
| *Arrangements* | R.S. Ledley |
| *Program Chairmen* | A. Rosenfeld, L. Kanal, & T. Cover |
| *Publicity* | D. G. Lainiotis |
| *Publication Chairman* | R.S. Ledley |



Souvenir postcard signed by the participants at the Airlie House meeting in 1972

It was not stated explicitly in the minutes of this meeting that the intention was to have an annual conference. The idea of an annual conference, however, was mentioned in letters written by K.S. Fu, shortly after the meeting, to invite professional societies to sponsor the first IJCPR.

## 4. Activities Prior to the First IJCPR in Washington,  DC

In March-April 1972, K.S. Fu sent out letters inviting the 32 nominated persons to serve as member of the Committee for the First IJCPR, and several professional societies to co-sponsor the conference. A Progress Report from K.S. Fu, in the autumn of 1972, to the members of the Conference Committee for the International Joint Conference on Pattern Recognition, stated that the First IJCPR would be held at the Mayflower Hotel, Washington, D.C., during 30 October – 1 November 1973.

An announcement and call for papers for the First IJCPR, drafted by A. Rosenfeld, was enclosed with the Progress Report. An attached list showed that, out of the 32 nominated committee members, 4 had not replied to the invitation to become a member while all of the other 28 had agreed. Subsequently, one of the four also replied favorably. The Committee thus consisted of 29 members (see Appendix 1).

Also included in K.S. Fu's progress report was a list of the sponsoring societies:

> *IEEE (Computer Society; Systems, Man and Cybernetics Society; Control Systems Society;*
> *and Information Theory Group)*
> *IFIP*
> *Optical Society of America*
> *Pattern Recognition Society*
> *The Society of Photo-Optical Instrumentation Engineers*
> *Association for Computing Machinery.*

Finally, the Progress Report stated that a request for financial support had been submitted to the National

Science Foundation. This support was later obtained.

A second announcement for the First IJCPR was issued in the course of 1973, with the logos of all the societies mentioned above as well as the names of the 29 members of the Conference Committee.

## 5. The First International Joint Conference on Pattern Recognition

The First IJCPR conference was held in Washington, D.C., 30 October – 1 November 1973, as scheduled. There were 3 parallel sessions with 89 scheduled papers: 65% from the U.S.A., 15% from Japan, 15% from Western Europe and 5% from other parts of the world. The conference included two workshops, one panel and a banquet. The attendance consisted of 312 individuals from 14 countries: 77.5% from the U.S.A., 4.5% from Japan, 15% from Western Europe, and 3% from other parts of the world. (For details, see Appendix 2.)

The organizing meeting was held at the Mayflower Hotel, Washington, D.C., 31 October 1973. Present were: Fu, Becker, Chow, Cover, Freeman, Guzman, Kanal, Kazmierczak, Lainiotis, Ledley, Nadler, Nagumo, Orhaug, Patrick, Rotolo, Rutovitz, Sakai, Simon, Vamos, Verhagen, and Watanabe. The chairman was K.S.Fu and the minutes were recorded by R. Ledley.

Several motions were passed by the Committee:

(1) The Second IJCPR would be held in Copenhagen, Denmark during 13-15 August 1974. The Chairman would be C.J.D.M. Verhagen of the Netherlands, P.W. Becker of Denmark would be the Local Arrangements Chairman, and the Program Chairman was to be chosen by these two persons.

(2) M.S. Watanabe of the U.S.A was required to organize and act as Chairman of a subcommittee that would invite suggestions and present recommendations for the site of the 1976 Joint Conference.

(3) H. Freeman of the U.S.A was directed to explore the possibility of affiliation of the Committee with the International Federation of Information Processing Societies (IFIP).

(4) The First International Joint Conference Committee reconstituted itself as the "Continuing International Joint Committee on Pattern Recognition" with the same members and the following officers:

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| *Chairman* | K.S. Fu |
| *Vice Chairmen* | C.K. Chow and H. Freeman |
| *Secretary* | R.S. Ledley |
| *Treasurer* | L.S. Rotolo |

A few comments, related to these motions are:

•. The choice of Copenhagen, and the period of 13-15 August was made because the IFIP Congress 1974 was taking place in Stockholm during 5-10 August and it was expected that many participants would use this opportunity to attend both conferences. The place and date of the second IJCPR were discussed before the Committee meeting by K.S. Fu and P.W. Becker. At the meeting, P.W. Becker was able to give some advance information about the possibilities in Copenhagen and about the budget of the Second IJCPR.

•. The Second Conference had to take place in 1974. The short interval between the first and the second conference was to be considered exceptional and was to make sure that subsequent conferences could be held biennially in *even-numbered* years, thereby assuring that these conferences would be out of phase with the Artificial Intelligence Conferences, which were held biennially in *odd-numbered* years.

•. The name of the Committee underwent numerous changes in the course of the years. Instead of the long name "Continuing International Joint Committee on Pattern Recognition," the name "Standing Conference Committee" was put in use soon after this meeting. Although the long-term intent was that the conference be international in scope, the initiative was a U.S.A.-one. Thus after the first meeting of the Committee for the

First International Conference On Pattern Recognition, K.S. Fu signed his correspondence as "Chairman U.S. Committee for the First IntI. Joint Conference on Pattern Recognition." The first Standing Conference Committee was still restricted to U.S. officers.

## 6. Activities Leading Up to the Second IJCPR in Copenhagen

A first announcement of the Second IJCPR was issued at the end of the First IJCPR in Washington, D.C. It was stated that papers on industrial applications, feature extraction, image processing and scene analysis would be particularly welcome. A special session on urban environmental problems was also announced. In December 1973 a second announcement and a call for papers was issued.

L.S. Rotolo assisted the organizers of the Second IJCPR in an efficient way by transferring the knowhow gained at the First IJCPR, distributing author kits all over the world, and asking the sponsoring Societies of the First IJCPR to continue their sponsorship, etc. All sponsoring societies of the First IJCPR maintained their sponsorship; the Dansk Ingenirforening and Ingenir-Sammenslutningen joined them. An attempt to have the Classification Society as a sponsor, however, was not successful.

From the very beginning of the organization of the Second IJCPR much attention was given to contacts with scientists from U.S.S.R. in order to have them present papers in Copenhagen. At the First IJCPR a few papers from the U.S.S.R. were submitted and accepted, but in fact none of the authors could attend.

V.A. Kovalevsky from Kiev was a member of the Standing Conference Committee and accepted to be a member of the scientific committee. He was very active in announcing the Second IJCPR in the U.S.S.R. and in encouraging authors to submit papers. He received 7 papers and accepted 4 of them, which were published in the proceedings. The authors of the other three papers had scant hope to be able to participate in the Conference. Their papers were not reviewed. Unfortunately, the authors of the 4 accepted papers could not come to Copenhagen because their travel budget for 1974 had already been exhausted before the first announcement for the Second IJCPR arrived in the U.S.S.R. It also became clear that a conference organized by an organization in which the U.S.S.R. were a member would greatly facilitate participation by Russian scientists. This was also one of the reasons for seeking an affiliation with IFIP, which is such an organization.

Instead of Program Chairmen - as mentioned in a motion in the Washington, D.C. meeting - a Scientific Program Committee of 7 persons from different areas in the world was appointed. Each member was entitled to accept papers submitted to him, according to some standard rules. In cases of doubt, the decision was to be deferred to C. Verhagen. E. Backer from the Netherlands was appointed Secretary of the Conference, and he took care of a great deal of the organizational details.

In order to support the printing of the Proceedings - one of the main expenses in organizing a conference - the IEEE Computer Society's agreement to buy 700 copies on a pro rata basis was instrumental. By having 1100 copies printed rather than the 400 that were deemed necessary for the Conference participants, the price per copy was substantially lowered.

## 7. The Second International Joint Conference on Pattern Recognition

The Conference was held in Lyngby, near Copenhagen, Denmark, 13-15 August 1974. A total of 136 papers were scheduled, to be presented mostly in 4 parallel sessions. Of these 36% were from the U.S.A., 10.5% from Japan, 41.5% from Western Europe and 12% from other parts of the world. The Conference included opening and closing sessions, 6 invited survey papers, four panels, three sessions on last-minute papers and a banquet. A ladies program was organized. According to the attendance list, there were 374 individuals, from 20 countries. Of these 19% were from the U.S.A., 5% from Japan, 68% from Western Europe and 8% from other parts of the world.

## 8. Meeting of the Standing Conference Committee During the Second IJCPR

The organizing committee meeting was held at the Hotel Eremitage, Lyngby, Denmark, 14 August 1974. In attendance were: Fu, Becker, Csibi, Freeman, Guzman, Kazmierczak, Nadler, Nagumo, Narasimhan, Orhaug, Patrick, Rosenfeld, Rutovitz, Simon, Verhagen, Watanabe. Others present were Backer, Oestreicher, Sklansky, Roche. The chairman was Fu, who also wrote short informal minutes about the meeting.

H. Freeman gave a report on the status of a possible affiliation with IFIP. H. Freeman, who had been active in IFIP for many years, pointed out that the benefit of affiliate status would be that IFIP would then not feel the need to create its own technical committee to deal with pattern recognition. It was approved that IAPR should affiliate with IFIP but on a loose and nonpermanent basis in order to maintain independence. H. Freeman and K.S. Fu were appointed to proceed with the formal negotiation with IFIP.

The re-organization of the Standing Conference Committee was discussed. Several possibilities were considered. The general consensus was that, instead of making minor changes in the membership at that time, we should immediately consider a reorganization on a permanent basis. The idea was to found a professional society on pattern recognition with - as stated above - loose affiliation with IFIP. Verhagen (Chairman), Freeman, Fu, Guzman, Nagumo and Simon were appointed to a subcommittee which would draft a constitution for the permanent organization. It was planned that the first draft of the constitution would be distributed to the committee members around 15 March 1975. A final ballot would be conducted during the fall of 1975. The reorganization should be completed before the third IJCPR. Members should send their opinions and suggestions about the re-organization to Verhagen. With the re-organization in mind, no changes were made to the membership of the Standing Conference Committee and its officers.

After preparations and recommendations by M.S. Watanabe and his sub-committee on the site of future conferences it was approved that the Third IJCPR be held in Southern California, in the fall of 1976, with A. Rosenfeld and J. Sklansky as Chairman and Vice Chairman, respectively, and that the Fourth IJCPR would be held in Japan in 1978, with M. Nagao, J. Nagumo, and M.S. Watanabe responsible for the preparation of this Conference. These decisions confirmed the idea of a biennial Conference and started the alternation of the site of the Conference between the U.S. Mainland and outside.

## 9. Adoption of the IAPR Constitution

Only a few suggestions about the reorganization planned in Lyngby came in. To initiate a discussion in the "Reorganization Committee" a report with some tentative ideas was distributed, 7 October 1974, to the members of this committee. Five organizational types with their pro's and con's were proposed. The degree of independence and the matter of individual versus national organization membership were the main variables. Given the responses of members of the "Reorganization Committee" a rough draft for a constitution for an International Pattern Recognition Society was drawn up based upon an independent society with individual members. It was distributed 9 December 1974. The purpose of this draft was to formulate more clearly and in more detail than in the previous report the type of organization that seemed to be appropriate.

In the meantime and afterwards, contact with R.S. Ledley, the President of the "Pattern Recognition Society", was maintained in order to investigate the possibility of using his Society – perhaps in a modified form – for our purposes. He was open to discussing this alternative and proposed an amendment to the constitution of his Society. The Reorganization Committee also made suggestions to alter that constitution in order to make the Pattern Recognition Society a truly international organization, with a structure in accordance with the ideas of the rough draft mentioned above and the comments of members of this Committee. Unfortunately, no agreement about an adaptation of the "Pattern Recognition Society" could he reached. A deadlock was the result. Meanwhile, H. Freeman discussed with IFIP the possibility of an affiliation with an international pattern recognition organization. The reactions were very positive.

Encouraged by K.S. Fu and H. Freeman, it was decided to go ahead with the setup of a new organization. A new draft for a constitution was drawn up, taking into account the comments of the members of the Re-organization Committee on the draft of 9 December 1974. An important change in relation to this draft was the possibility of membership for national organizations (and their representation in a Governing Board). The new organization would be a kind of federation of national organizations in pattern recognition but also with individual members from countries without a national organization in the field. The name of the organization would be "International Association for Pattern Recognition" according to a suggestion from H. Freeman, to avoid confusion with the Pattern Recognition Society.

This draft was sent on 8 September 1975 to the members of the Reorganization Committee, together with a questionnaire asking members to indicate whether they agreed with this proposal, and to ask which changes if any they wanted to suggest. All members of the Reorganization Committee agreed with the proposal; though, some suggestions for changes were proposed. These suggestions were taken into account in preparing a new draft, dated 10 October 1975. This draft may be considered as the final result of the work of the Reorganization Committee and to mark the end of the activities of this Committee.

The Standing Conference Committee now took over the responsibility for the reorganization. K.S. Fu, as president of the Standing Conference Committee, distributed the draft of 10 October 1975 to all members of this Committee on 8 December 1975. A great majority of the members of the Standing Conference Committee accepted the draft constitution, but again some proposals for changes were given. One major change suggested was to recognize only individual members instead of the proposed two types of memberships, national organizations and individual members.

A new draft, dated 1 April 1976 gave two alternatives as to the membership. According to Alternative 1 members could be either national organizations or individuals; Alternative 2 offered only individual membership with a possibility for national or international organizations to apply for *affiliation* with the Association. This revised draft was distributed by K.S. Fu to the members of the Standing Conference Committee on 18 May 1976. Again, suggestions for textual changes came in. The responses indicated a preference for national organizations as well as individuals as members. But this result could not be regarded as a formal decision. Such a decision had to be taken at the next meeting of the Standing Conference Committee.

The name "International Association for Pattern Recognition" was accepted by an overwhelming vote.

## 10. Activities Leading Up to the Third IJCPR, in Coronado, California

In a letter, dated 18 November 1975, the "Nachrichtentechnische Gesellschaft in VDE" invited the Fourth IJCPR to be held in Munich or Garmisch-Partenkirchen, both in Germany. T. Sakai from Japan on 29 March 1976, invited the Fourth IJCPR to Kyoto, in accordance with the Lygnby recommendation. As both countries were interested in knowing a decision as early as possible, K.S. Fu called for a written ballot on the location of the Fourth IJCPR on 5 April 1976. The result, as distributed by K.S. Fu on 10 May to the members of the Standing Conference Committee was: Germany 3 and Japan 10 votes; hence the conference would take place in Kyoto. In order to facilitate election of officers for the new Association, K.S. Fu asked on 9 July 1976, C.J.D.M. Verhagen, J. Nagumo and H. Freeman to serve on a Nominating Committee. They all agreed.

During 1976 several countries set up national organizations on pattern recognition in order to become organizational members in case the constitution would make such membership possible. In a letter dated early August 1976, K.S. Fu mentioned that it was known that "Great Britain, France, DFR (West Germany), Japan, Hungary, Sweden, and Italy had already established national organizations." From his contacts with the Academy of Science of the U.S.S.R, he expected representatives of the U.S.S.R at the Third IJCPR.

As a result of the efforts of H. Freeman, IFIP accepted at its General Assembly in Rio de Janeiro, 22-24

October 1975, the future International Association for Pattern Recognition as an "affiliate" member. A committee, headed by H. Freeman, was appointed to work out a clear definition of the terms of the affiliation.

## 11. The Third International Conference on Pattern Recognition

The Third International Conference was held in Coronado, California, U.S.A., 8-10 November 1976. There were mostly 4 parallel sessions, with 155 papers scheduled, of which 51% were from the U.S.A., 11 % from Japan, 33% from Western Europe, and 5% from other parts of the world. There was one panel, a tour of local-area laboratories, exhibits, and a banquet. According to the attendance list, there were 369 individuals from 16 countries, of which 67% were from the U.S.A., 6% from Japan, 22.5% from Western Europe and 4.5% from other parts of the world.

## 12. Meeting of the Standing Conference Committee during the Third IJCPR

The Conference Committee meeting was held at the Hotel del Coronado, Coronado, California, U.S.A. on 8 November 1976. Present were: Fu, Becker, Caianiello, Chow, Cover, Duff, Freeman, Guzman, Kanal, Kazmierczak, Nadler, Nagao, Nagumo, Orhaug, Patrick, Rosenfeld, Rotolo, Sakai, Simon, Verhagen, Watanabe. The Chairman was Fu.  Freeman wrote the minutes.

An important matter was the discussion of the draft constitution of 1 April 1976. Alternative 1 (membership open to either national organizations or individuals) was adopted but the words "national organizations" were replaced by "professional societies". In the draft, it was stated that those individuals could be members "who are or have been working in the field of interest"; the words "who are or have been" were stricken. The motion concerning this article on members was passed, 14 for, 3 against.

A section in the draft concerning some restrictions as to the organization of regional conferences, meetings, workshops etc. was deleted unanimously. The restriction in the draft that periodicals, published by the Association would "not to compete with existing journals" was deleted with 17 for and 1 against.  Since no other changes with respect to the draft were adopted, K.S. Fu announced that the Constitution as amended was now in effect. (See Appendix 3.)

A few motions concerning the way officers should be elected were carried unanimously.

The Nominating Committee announced their choices for President, Vice President, Secretary and Treasurer. No nominations from the floor were made. As a result the Executive Committee was constituted as follows:

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| *President* | K.S. Fu |
| *Vice President* | M. Aizerman (with the proviso that T. Vamos would assume the position if Aizerman did not accept) |
| *Secretary* | C.J.D.M. Verhagen |
| *Treasurer* | H. Freeman. |

A. Rosenfeld and T. Sakai would automatically be members of the Executive Committee in their positions as chairman of the past and next IJCPR, respectively.

The President announced the appointment of a Bylaws committee consisting of C.J.D.M. Verhagen (chairman), P. Becker, A. Guzman, and A. Rosenfeld. It was decided that the Bylaws were to be approved by the present Standing Conference Committee by a mail ballot.

It was approved unanimously "that the Standing Committee be dissolved upon adoption of the Bylaws, and that the Executive Committee be instructed to strive to accomplish this as quickly as possible."

Several other points were discussed. A motion by M. Nadler, "that IAPR endorse the publication of an

international abstracts and review journal by Scientific Information Consultant, Ltd' of London" was defeated. A report by T. Sakai on the plans for the Fourth lJCPR was adopted. The full financial responsibility for the conference would rest with the local Japanese committee. A motion "that the Standing Committee approve that one day of the 4th IJCPR in Kyoto be organized jointly by IJCPR and the IEEE S.M.C." was passed unanimously.

H. Freeman reported on the relations with IFIP. After the acceptance of IAPR at the IFIP General Assembly in Rio de Janeiro as an Affiliate member, it was agreed that the liaison delegates (H. Freeman for IAPR) would be invited to each other's meetings as observers. A report on IAPR activities would have to be submitted to IFIP for inclusion in the annual IFIP report. Copies of the advance program for the Third IJCPR were distributed to all IFIP national delegates and committee chairmen.  A motion by H. Freeman was approved unanimously "that IAPR endorse collaboration with the IFIP Working Conference on AI and PR in Computer Aided Design, with the understanding that IAPR would incur no financial obligation".

Finally it should be noted that this meeting (and subsequent ones) were conducted in a formal manner, following established parliamentary procedure, with well-defined motions that had to be seconded, followed by discussion and then formal voting.

## 13. First Meeting of the Executive Committee of IAPR

The first meeting of the Executive Committee was held at the Hotel del Coronado, California, U.S.A., 10 November 1976. Present were: Fu (president), Freeman, Rosenfeld, Sakai and Verhagen (secretary), members of the Executive Committee; Cover and Simon, chairmen of the Publications Committee; Watanabe, chairman of the Conference Committee.

Several administrative procedures were drawn up: the President shall receive duplicates of all letters; the correspondence with the U.S.S.R shall be handled by Fu; Freeman shall prepare a legal seat for IAPR in the U.S.A.; Committee chairmen shall report to the president.

The indication "professional societies" as adopted in the previous meeting of the Standing Conference Committee was found to raise difficulties for countries where no such societies exist, but persons with an interest in pattern recognition were organized in working committees, associations or divisions of a society, etc: Hence it was found more appropriate to talk about "scientific or professional organizations". These terms were to be inserted in the next edition of the Constitution, to be sent to the members of the Governing Board.

Appointed to the Publications Committee were:

> T.M Cover and J. C. Simon, co-chairmen
> A. Rosenfeld          D. Rutovitz
> H. Freeman            N. G. Zagoruiko
> A. Guzman             D.N. Lebedev

It was also agreed to have a semi-annual ICPR Newsletter. Cover and Simon gave their views concerning the contents of such a newsletter; Cover wrote a memorandum on this subject.

Appointed to the Conference Committee were:

> S. Watanabe and H. Kazmierzak, co-chairmen,
> E. Caianiello         L.N. Kanal
> V.A. Kovalevsky       T. Vamos
> C.K Chow              Y.T. Zhuravlev

Appointed to the Membership Committee were:

> C.J.D.M. Verhagen, chairman,
> H. Freeman        P. W. Becker
> J. Nagumo

The Membership Committee was charged with ascertaining the credentials of candidate member organizations and individual members and to make recommendations as to their acceptability.

Finally, many points and formulations for the Bylaws were discussed, such as criteria and procedures for enrollment of organizations and individuals, designation of representatives from member organizations and individuals, election of officers, procedures for obtaining decisions in the Governing Board and the Executive Committee both from the floor and from mail ballots, etc. The suggestions made were embodied in the first draft of the Bylaws (see next section).

There was an informal breakfast with two U.S.S.R. attendees concerning the way pattern recognition was organized in the U.S.S.R. and how pattern recognition might be represented in the Governing Board.

In the meantime, Freeman, as instructed by the Governing Board, arranged to have IAPR officially incorporated under the laws of the State of New York, USA, and to have it recognized by the US Federal government as a tax-exempt, non-profit, professional organization.

## 14. Adoption of the BYLAWS

The adoption of the Bylaws went much more smoothly than the adoption of the Constitution. Many procedures were discussed in Coronado, and many sentences were copied from the IEEE-Bylaws. A first draft was sent out on 24 November 1976 simultaneously to the members of the Bylaws Committee and the members of the Executive Committee. A parallel procedure was chosen for the purpose of saving time.

A second draft, sent on January 18, 1977, taking into account the remarks of members of both committees, was approved by these committees. It was sent to the members of the Standing Conference Committee on 14 March 1977 for a mail ballot.

The mail ballot, dated 20 May 1977, did approve the draft of the Bylaws with only a few comments as to the formulation of some articles. A final version of the Bylaws, with some minor editorial changes with respect to the draft of 14 March was issued in December 1977.

The acceptance of the Bylaws was the last action of the Standing Conference Committee. As approved in Coronado it was dissolved upon adoption of the Bylaws. The Executive Committee, together with its sub-committees, then assumed responsibility for all activities up until the first meeting of the Governing Board of IAPR on 7 November 1978.

## 15. The STRUCTURE of the INTERNATIONAL ASSOCIATION for PATTERN RECOGNITION

A short summary may be useful about the structure of the IAPR as determined by the Constitution and the Bylaws. Appendix 3 contains a copy of the Constitution as of November 1978, after the first meeting of the Governing Board of IAPR.  (It has, of course, been amended many times since then.)

The field of interest was formulated broadly as "Pattern Recognition and the allied branches of engineering, together with the related arts and sciences".

"Members may be either scientific or professional organizations or individuals working in the field of interest." The Bylaws describe what type of organizations may become a member: "To be eligible for membership, an organization shall be national, multinational or international in scope and shall be a non-profit, scientific or professional organization, whose membership is open to qualified individuals and is organized

along democratic principles. The term "national" is defined to be in accordance with accepted United Nations terminology." This description makes it possible that quite different types of organizations may become a member; in addition to "national" organizations, several countries may form a multinational or international organization; "democratic" means that the members have influence upon the way the organization works. There is, however, also a restriction as to the organizations that can become a member, because: "It would normally be expected that only one member organization of IAPR would exist in a given geographical area. Under special circumstances the Governing Board, advised by the Membership Committee, may allow exceptions to this." This section was inserted because it was not evident that already existing organizations in one country with an interest in pattern recognition, would amalgamate into one representative organization. In practice, however, no difficulties as to this point did occur.

Individual membership in IAPR is possible to those who have demonstrated professional competence in the field of interest and live in an area where no member organization of IAPR exists. But under special circumstances the Membership Committee may allow exceptions to this. In practice, again, no difficulties as to this point were encountered.

A Governing Board and an Executive Committee were designated to determine the form of government. The Governing Board consists of representatives of the member organizations and of the individual members. In order to determine the number of representatives from member organizations three categories of member organizations are distinguished, depending on the number of persons belonging to that organization who have an interest in pattern recognition or its allied fields:

Category A with a membership of 25 – 200:  one representative,
Category B with a membership of 201 – 800:  two representatives,
Category C with a membership above 800:  four representatives.

The representatives are designated by their organizations. To avoid national dominance, no more than six members may be permanent residents of any one country; this might occur if, by exception, more than one organization would exist in a given geographical area.

25-100 individual members may elect one representative to the Governing Board; 101-200 may elect two, 201-300 may elect three representatives, etc.

In practice, there were only a few individual members, less than 25, so it was not necessary to execute a quite complicated mail ballot to elect a representative for the individual members. An individual member, however, was invited as an observer at the first meeting of the Governing Board in Kyoto.

The Executive Committee consists of a President, Vice President, Past President, Secretary, Treasurer, Chairman of the next International Conference, and Past Chairman of the Conference. The election of President, Vice President, Secretary and Treasurer shall be conducted by the Governing Board at its biennial meeting. The Nominating Committee shall recommend candidates, and members of the Governing Board may propose names to be added to those recommended by the Nominating Committee. The chairman of the next International Conference also has to be elected by the Governing Board; his nomination is recommended in practice by the organization of the country where the Conference will take place.

The biennial meeting of the Governing Board, to be held during the International Conference, is the most important meeting of IAPR. Here, the main decisions have to be taken for the future activities of the Association. If it would be necessary to make a decision between biennial meetings, a mail ballot is possible.

Meetings of the Executive Committee shall be called by the President, or by any three members of the Executive Committee. Again a mail ballot, but also a telephone ballot, is possible.

In case of severe conflicts, a General Meeting of the Association concerning one or more specified items has to be organized during the next International Conference if at least 5 member organizations or 50 individual members ask for it. The quorum for such a meeting is 5% of the sum of the number of individual members and of the total effective sizes of the memberships of all member organizations. Decisions shall be by majority vote of all members (both members of member organizations and individual members) present at the meeting. Such decisions are binding on the Governing Board and the Executive Committee. There is also a provision for a mail ballot. Now individual members shall vote individually but member organizations as an organization. The quorum now is half of the number of member organizations together with 5% of the individual members. The votes of individual members are counted as one vote each, the vote of a category A organization as 50 votes, of a category B organization as 100 votes and of a category C organization as 200 votes. The hope exists that such a General Meeting or mail ballot will never be necessary.

The Bylaws contain quite detailed procedures for all different types of voting.

The Constitution opens the possibility to affiliate with international organizations to facilitate co-operation in related fields, the co-ordination of conferences and the acquisition of facilities. A biennial International Conference will be organized unless special circumstances prevent it. They have to take place successively in different parts of the world.

The Association may publish periodicals, journals, newsletters, proceedings or special publications. The general policy concerning publications has to be determined by the Governing Board.

## 16. Activities Leading Up to the Fourth IJCPR, in Kyoto, Japan

On 14 March 1977 the final draft of the Bylaws was distributed to the members of the Standing Conference Committee (which had an identical composition as the one of 1973). The members were requested to pass copies of the Constitution and the Bylaws to the organization(s) in their country or geographical area that might become a member organization of IAPR and to encourage them to apply for membership, The idea was to receive the applications for membership before 15 October 1977, in order to start the activities of the Membership Committee in due time, resulting in a formal start of IAPR on 1 January 1978.

The dates mentioned appeared to be too optimistic. Only F.R. Germany, Finland and Denmark applied for membership before 15 October 1977. There were 10 applications by April 1978 and 13 just before the beginning of the Fourth IJCPR, together with 4 applications for individual membership.

The member organizations in order of application were:

| Country | Category |
|---|---|
| F .R. Germany | B |
| Finland | A |
| Denmark | A |
| England | A |
| France | A initially, then changed to B |
| Italy | A |
| Sweden | A |
| Mexico | A |
| The Netherlands | A |
| U.S.A. | C |
| Japan | B |
| Canada | A |
| Belgium | A |

Of the 19 representatives designated by the member organizations more than 2/3 were already members of the Standing Conference Committee, confirming that the initiators of the First IJCPR had done well in choosing the members of their Conference Committee. The 19 representatives (or their substitutes) forming the first Governing Board are listed in Section 19, which describes the Governing Board's first meeting. The *individual members*, in order of application, were:

> R.A. Jarvis, Australia
> F.L. Leberl, Austria
> Dr. Deekshatulu, India
> Dr. Celso de Renna e Souza, Brasil.

In several cases the Membership Committee had to request additional information from the applicant organization. In one case, a request was made to have the national constitution modified so that the relation with IAPR would be more clearly defined; this request was accepted. Eventually all the applications were approved unanimously by the Membership Committee. The committee then recommended that all applications be accepted by the Executive Committee with the category of membership as indicated above.

It had been planned to publish an IAPR Newsletter before the Fourth IJCPR; however, the Publication Committee was not able to do so. K.S. Fu then took over the task and published the first Newsletter in August 1978 with much information about IAPR, future conferences and new books on Pattern Recognition.

Applications for the 1980 International Conference were received from F.R. Germany (22 November 1977); Sweden (1 June 1978), and U.S.A. (undated) for the 1980 or 1982 Conference.

## 17. The FOURTH INTERNATIONAL JOINT CONFERENCE on PATTERN RECOGNITION

The Fourth Conference was held in Kyoto, Japan, during 7-10 November 1978. There were mostly 5 parallel sessions with 207 scheduled papers. According to the final program, 24% of the papers were from the U.S.A., 37% from Japan, 28% from Western Europe and 11% from other parts of the world.

There were 16 invited survey papers, 4 panels, an opening session with an invited speaker, a luncheon with a speaker, a banquet, a technical tour to laboratories in Kyoto and two tours in Tokyo. A ladies' program was also organized.

According to the attendance list, the attendance was 543 from 23 countries; 10.5% from the U.S.A., 68.5% from Japan, 15% from Western Europe and 6% from other parts of the world.

Though the Conference was announced as a "joint" conference, no other society than IAPR did sponsor it. Thus no reduction in Conference fee was given to members of sponsoring societies.

## 18. SECOND MEETING of the EXECUTIVE COMMITTEE of IAPR

The second meeting of the Executive Committee of IAPR was held in Kyoto, Japan, on 6 November 1978. Present were Fu (president), Freeman, Rosenfeld, Sakai, Verhagen (secretary), Simon (chairman, Publications Committee), Watanabe (chairman, Conference Committee), Becker (chairman, Nominating Committee), and as guests, Caianiello and Castan.

The Executive Committee accepted by unanimous vote the recommendation of the Membership Committee to accept 13 organizations and 4 individuals as members of IAPR, and their 19 representatives as designated by these organizations as members of the Governing Board. This decision may be regarded as the formal founding of IAPR.

Most of the other items on the agenda were related to the first meeting of the Governing Board, one day later. Several proposals were prepared. In order to avoid repetitions, all this will be treated in the next paragraph together with the decisions of the Governing Board.

## 19. FIRST MEETING of the GOVERNING BOARD of IAPR

The first meeting of the Governing Board of IAPR was held 7 November 1978, at the Kyoto Hotel, in Kyoto, Japan. Present were representatives from: Belgium (Devijver); Canada (Levine); Denmark (Becker); F.R. Germany (Marko, Platzer - substituting for Kazmierczak)); Finland (Kohonen); France (Simon, Castan - substituting for Perrennou)); Italy (Caianiello); Japan (Sakai, Nagumo); Mexico (Guzman); The Netherlands (Verhagen); Sweden (Danielsson - substituting for Orhaug)); U.K. (Rutovitz); U.S.A. (Watanabe, Rosenfeld, F'u, Freeman). Observers present were: Della Riccia (Israel), Zagoruiko (U.S.S.R.), Mero (Hungary), Jarvis (individual member), Pavlidis (U.S.A.). Fu served as chairman and Verhagen served as secretary.

The recommendation of the Membership Committee to accept 13 organizations and 4 individuals as members of the IAPR was approved and Fu mentioned the 19 representatives that were allowed to vote at the meeting. From that time on, IAPR could develop its activities in conformity with its Constitution.

The proposed budget for next years had as its main expenditures 4 issues of the Newsletter; these issues were considered important for contacts among the members of IAPR. However, their costs were expected to be higher than what reasonable membership dues would bring in. For that reason H. Freeman, the Treasurer of the Executive Committee, proposed that 10 per cent of the gross registration receipts of an International Conferences of IAPR would be paid to the IAPR treasury. After discussion and several motions, the final proposal was: "Resolved that the organizers of an International Conference on Pattern Recognition prepare their budget and set their fee structure so as to provide for compensation to IAPR for its efforts and expenses in promoting the Conference. Such compensation is to be 10 per cent of the gross registration receipts and is to be paid to the IAPR treasury no later than 45 days after the conclusion of the Conference." The vote was 17 in favor, none opposed, 2 abstained; the motion was accepted.

Watanabe, chairman of the Conference Committee, reported and surveyed the applications of Sweden, F.R. Germany. and U.S.A. for the 1980 conference and of the United Kingdom for 1982. After discussion, the results of a written ballot (for 1980) were: Germany 8 votes, Sweden 4 and U.S.A. 7 votes. A second vote was necessary to decide between Germany and U.S.A. The result was: Germany 9 votes, U.S.A. 10. The 5th IJCPR thus would be in Miami U.S.A., with Freeman as general chairman and Pavlidis as program chairman. After discussion and several proposals a motion was made to have the 1982 Conference in Germany, and that in the future the Governing Board would plan two Conferences ahead; 13 representatives voted in favor of the motion, 1 opposed and 5 abstained. The 1982 Conference would be in Germany (München).

Becker, chairman of the Nominating Committee, reported on the activities of his committee. They found that Fu was not willing to serve another term as president. The Committee nominated Freeman as President, Watanabe as Vice President and Verhagen as Secretary. No nominations for Treasurer could be advanced. Freeman proposed to nominate Becker as Treasurer. No nomination was made from the floor. In absence of the officers under discussion, and all nominations seconded, 18 representatives were in favor of the candidates nominated, none opposed.

The Executive Committee for 1978 - 1980 thus was:

| | |
|---|---|
| President | H. Freeman |
| Vice President | M.S. Watanabe |
| Past President | K.S.Fu |
| Secretary | J.D.M Verhagen |
| Treasurer | C P.W. Becker |
| Past Chairman Conference | T. Sakai. |

Since Freeman had become president of IAPR for the 1978-80 period, Pavlidis was designated as general chairman of the Fifth IJCPR, scheduled for Miami, Florida in 1980. Pavlidis thus also became a member of the Executive Committee as Chairman of the next Conference.

All representatives were in favor of a proposal by Freeman to have the titles "Chairman" changed to "President" and "Vice Chairman" changed to "Vice President" in the Constitution and Bylaws of IAPR. (In the previous paragraphs these changes had already been made).

Rosenfeld, Becker, Nagumo and Guzman were designated as members of the Nominating Committee, with Rosenfeld as chairman.

The observers gave some information concerning the situation in their country in relation to IAPR. Organizations on pattern recognition in Israel, U.S.S.R. and Hungary were likely to become members of IAPR in the future. Australia and Austria indicated that there was not sufficient support to found such organizations at this time. Contacts were held with scientists from the People's Republic of China.

Other affairs discussed at the meeting were: publications by IAPR, a report by Sakai concerning the Fourth IJCPR, a report by Freeman concerning the IFIP affiliation, and finally resolutions thanking T. Sakai most cordially for his hospitality and fine activities in relation to the Conference and IAPR meetings, and thanking K.S. Fu for all his activities in relation to the founding of IAPR and serving as President for the past two years.

There was the general feeling expressed at this meeting that the design of IAPR as structured according to the Constitution and the Bylaws seemed to be a good one and that it met the stated objective of serving "the advancement of theory and practice in the field of pattern recognition and the allied branches of engineering, together with the related arts and sciences."

## 20. CONCLUSION of the Report on the Founding of IAPR

The preceding paragraphs describe in a short way the history of the founding of the International Association for Pattern Recognition, starting in February 1972, with the first meeting of the Committee for the First International Conference on Pattern Recognition, and ending with the first meeting of the Governing Board of the IAPR in November 1978. In addition to the many discussions that took place during the six and a half years separating the two dates, four successful international conferences on Pattern Recognition were held.

A study of the total number of papers and the total number of participants at these four Conferences, together with the contributions of the U.S.A., Japan, Western Europe and the rest of the world to these totals showed that the region of the world where the Conference takes place brings about an increase in the number of papers and especially in the number of participants from that region. So it is fair that the Constitution of IAPR prescribes that these Conferences shall take place successively in different parts of the world.

At the time of writing this first part of the history of IAPR, in the first half of 1983, two new Conferences, in Miami and München, had already taken place. Both had been very successful. But their history and the activities of the Governing Board and the Executive Committee after the first meeting of the Governing Board do not form a part of the history of the *founding* of IAPR and hence this is left for a later reporting. [2]

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[2] Part I of this history is based on the report prepared by C.D.M Verhagen in 1983. In that report he specially thanked K.S. Fu, H. Freeman, A. Rosenfeld, and P.A. Devijver for their help, criticisms, and additions.

# Part II

## Modern History of the
## International Association for Pattern Recognition -  1983-2008

### 21. General History of the IAPR after 1978

Following its formal organization in Kyoto in 1978, the *International Association for Pattern Recognition* (IAPR) was recognized as a full-fledged international organization, created to serve the field of pattern recognition in a manner similar to the way the International Federation for Information Processing (IFIP) was serving the computer field.  By having IAPR apply for and be accepted by IFIP as an Affiliate Member, it obviated the need for IFIP to set up a technical committee for pattern recognition, as it had done for most other specialized areas of the computer field.  The number of member organizations in IAPR increased in time, as shown in **Table 1**, growing from the original 13 at its founding in 1978, to 37 in 2000, and to 42 by 2008.  As a result also the Governing Board representatives increased from the original 19 to the present 56.
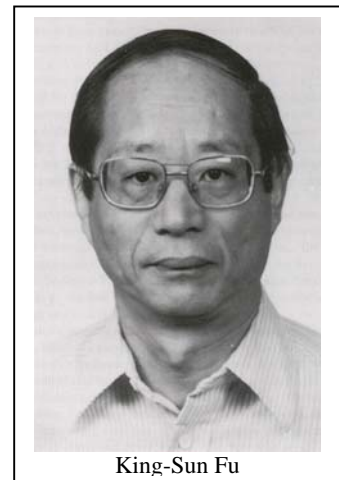
| Australia (1) | Austria (1) | Belarus (1) | Brazil (1) |
|---|---|---|---|
| Bulgaria (1) | *Canada (1) | Chile (1) | China (1) |
| Cuba (1) | Czech Republic (1) | *Denmark (1) | *Finland (2) |
| *France (1) | *Germany (2) | Greece (1) | Hong Kong (1) |
| Hungary (1) | India (1) | Ireland (1) | Israel (1) |
| *Italy (2) | *Japan (2) | Korea (South) (1) | *Mexico (1) |
| Morocco (1) | *Netherlands (2) | New Zealand (1) | Norway (1) |
| Poland (1) | Portugal (1) | Russia (4) | Singapore (1) |
| Slovenia (1) | South Africa (1) | Spain (1) | *Sweden (2) |
| Switzerland (1) | Taiwan (2) | Turkey (1) | Ukraine (1) |
| *United Kindom (2) | *USA (4) | | |

**Table 1.  IAPR Member Societies as of 2008**

The asterisk (*) before any name indicates that the national society of that country was a member of IAPR at its founding.  Missing from the list is Belgium, which was a founding member but subsequently dropped out. The numbers in parentheses represent the number of representatives on the Governing Board.

### 22. Creation of the King-Sun Fu Prize

It was a great shock to the pattern recognition community when it learned of the untimely death of K.S. Fu on 29 April 1985 at the age of 55.  Probably nobody deserves more credit for the founding of IAPR than Professor Fu.  He worked untiringly to create the organization, served as its first president, and in many other ways was the leading figure in the field. To commemorate his accomplishments, IAPR created the K.S. Fu Prize by special statute (S.3).  The prize was to be given no more often than biennially to a living person "in recognition of a technical contribution of far-reaching significance and impact on the field of pattern recognition or its closely allied fields made at any time in the past."  A permanent fund for the prize was set up, with contributions from Fu's family, from companies who had an interest in pattern recognition, and from a number of individuals.  The expectation was that the prize would be for pattern recognition what the Nobel prize in physics was for physics.


King-Sun Fu

The King-Sun Fu prize was first awarded at the 9th ICPR in 1988 in Rome, Italy, and has been awarded every two years (biennially) since then.  The recipients have been

| | | |
|---|---|---|
| Azriel Rosenfeld | 1988 | ICPR Rome |
| R.L. Kashyap | 1990 | ICPR Atlantic City |
| Laveen Kanal | 1992 | ICPR The Hague |
| Herbert Freeman | 1994 | ICPR Jerusalem |
| Teuvo Kohonen | 1996 | ICPR Vienna |
| Jean-Claude Simon | 1998 | ICPR Brisbane |
| Theo Pavlidis | 2000 | ICPR Barcelona |
| Thomas S. Huang | 2002 | ICPR Quebec City |
| J.K. Aggarwal | 2004 | ICPR Cambridge |
| Joseph Kittler | 2006 | ICPR Hong Kong |
| Anil K. Jain | 2008 | ICPR Tampa |

## 23. Other Awards

Awards have been created to commemorate other individuals, in particular two individuals who have died: the *Piero Zamperoni prize* for the best student paper presented at an ICPR and the *Pierre A. Devijver award* presented biennially at the SSSPR conference (a satellite conference of ICPR) to the scientist who has made an outstanding contribution to the field of statistical pattern recognition. There have also been awards given out by the Industrial Liaison Committee and some of the Technical Committees, such as the ICDAR award at the International Conference for Document Analysis and Recognition, the BIRPA award ("Best Industry-Related Paper Award"), and the BBSPA ("Best Biometric Student Paper Award") added in 2008.  In 2006 IAPR created a prize, named the *J.K. Aggarwal prize*, designed to recognize a young scientist (40 years of age or younger) who has brought a substantial contribution to a field relevant to IAPR. (For details, see the IAPR website: http://www.iapr.org/fellowsandawards/index.php.

## 24. Fellow Awards

An important development was the creation of the "Fellow" award in 1994.  This is an award, evidenced by a framed certificate, that gives special recognition to an individual for distinguished service to IAPR or scientific contributions to the field of pattern recognition. Some 35 Fellow awards were given out in 1994, the year of inception of the award.  According to the Bylaws of IAPR, the number of Fellows elected every two years must not exceed 0.25% of the total IAPR membership.  For a complete listing of the persons designated IAPR Fellows, see: http://www.iapr.org/fellowsandawards/index.php.

## 25. Travel Stipends

For some time it had become evident that the cost of attending IAPR conferences was becoming financially difficult for young investigators. Fortunately IAPR's financial condition had reached a point where it was sufficiently strong for the Governing Board to approve giving travel stipends to young investigators whose papers had been accepted for presentation and publication.  The first such stipends were given out in connection with the ICPR in 2002, and progressively increased in number and amount at succeeding ICPRs.

## 26. IAPR Newsletter

As soon as IAPR had been officially founded (in 1978), it was decided to have a periodic newsletter that would be distributed to all members. Published somewhat irregularly at first, it has in recent years been issued on a regular quarterly basis and has – as one would expect – become a major information dissemination source. From 1978 till 2004 it was published in print form. At its meeting in August 2004 the IAPR Governing Board approved the publication and distribution of the quarterly *Newsletter* in electronic form, and this has been the manner of distribution since then.  Its editors have had a significant impact on the development of the organization, and much credit for IAPR's accomplishment should go to them.  They are:

| | | |
|---|---|---|
| King Sun Fu | 1978-79 | |
| Martin Levine | 1979-81 | |
| Ruzena Bajcsy | 1981-84 | |
| Anthony Reeves | 1985-86 | |
| Joseph Kittler | 1986-90 | The Newsletter Editors |
| Adrian Clark | 1990-93 | |
| Maria Petrou | 1994-98 | |
| Michael Duff | 1999-02 | |
| Mitra Basu | 2002 | |
| Larry O'Gorman | 2002-08 | |
| Alexandra Albu | 2009---- | |

## 27. Permanent Secretariat

In 1992 a permanent IAPR Secretariat was set up under the management of Susan Duff. The purpose was to provide a permanent IAPR postal address, maintain the membership database, send out invoices and collect dues, maintain the IAPR archive, respond to inquiries, and staff a booth at the biennial ICPR conferences. Susan Duff retired in August 2004 and the position has since then been in the hands of Linda O'Gorman.

## 28. List of ICPR Conferences 1973-2008

IAPR continues to hold its biennial conferences (ICPR) in even-numbered years. The 1980 ICPR was held in Miami, Florida (USA). It was the fifth such conference (and the 2nd conference under the IAPR organization). A complete listing of all ICPRs through 2008 (and IJCPRs before them) is shown in **Table 2.**

| No. | Year | Location | Conference Chairman | No. of Papers |
|---|---|---|---|---|
| 1 | 1973 | Washington, DC (USA) | K.S. Fu | 81 |
| 2 | 1974 | Lyngby, (Denmark) | C.J.D.M. Verhagen | 141 |
| 3 | 1976 | Coronado, CA (USA) | A. Rosenfeld | 157 |
| 4 | 1978 | Kyoto (Japan) | M. Nagao | 231 |
| 5 | 1980 | Miami, FL (USA) | T. Pavlidis | 290 |
| 6 | 1982 | München (Germany) | H. Marko | 306 |
| 7 | 1984 | Montreal (Canada) | M.D. Levine | 388 |
| 8 | 1986 | Paris (France) | J.-C. Simon | 343 |
| 9 | 1988 | Rome (Italy) | S. Levialdi | 336 |
| 10 | 1990 | Atlantic City, NJ (USA) | H. Freeman | 316 |
| 11 | 1992 | The Hague (The Netherlands) | E.S. Gelsema & E. Backer | 600 |
| 12 | 1994 | Jerusalem (Israel) | S. Peleg & S. Ullman | 449 |
| 13 | 1996 | Vienna (Austria) | W.G. Kropatsch | 703 |
| 14 | 1998 | Brisbane (Australia) | T. Caelli & A. Maeder | 484 |
| 15 | 2000 | Barcelona (Spain) | A. Sanfeliu & J. Villanueva | 973 |
| 16 | 2002 | Quebec City (Canada) | C.Y. Suen | 805 |
| 17 | 2004 | Cambridge (UK) | J. Kittler | 951 |
| 18 | 2006 | Hong Kong (China) | Y.Y. Tang, P. Wang, G. Lorette, D.S. Young | 1168 |
| 19 | 2008 | Tampa, FL (USA) | M. Ejiri, R. Kasturi, G. Sanniti di Baja | 1006 |

**Table 2. The ICPR Conferences, 1973-2008**

## 29. List of IAPR Officers since its Founding

**Table 3** lists the officers of IAPR from its inception to the present. These are the key officers who, together with the Past President, form the Executive Committee of IAPR Those listed for the years 1973 to 1978 were, of course, officers of the Standing Committee and instead of "President" and "Vice-President" were referred to as "Chairman" and "Vice-Chairman", respectively.

| Year | President | 1st Vice President | 2nd Vice President | Secretary | Treasurer |
|------|-----------|--------------------|--------------------|-----------|-----------|
| 1973 | K.S. Fu | H. Freeman | C.K. Chow | R.S. Ledley | L.S. Rotolo |
| 1974 | K.S. Fu | C.K. Chow | H. Freeman | R.S. Ledley | L.S. Rotolo |
| 1976 | K.S. Fu | M. Aizerman | T. Vamos | C.D. Verhagen | H. Freeman |
| 1978 | H. Freeman | M.S. Watanabe | (vacant) | C.D. Verhagen | P.W. Becker |
| 1980 | A. Rosenfeld | P.W. Becker | T. Sakai | P.A. Devijver | M.D. Levine |
| 1982 | J-C. Simon | T. Kohonen | M. Nagao | P.A. Devijver | H. Freeman |
| 1984 | T. Sakai | P.A. Devijver | T. Pavlidis | M.J.B. Duff | H. Freeman |
| 1986 | P.A. Devijver | P.E. Danielson | M.D. Levine | M.J.B. Duff | H. Freeman |
| 1988 | M.D. Levine | M. Takagi | S. Levialdi | M.J.B. Duff | J. Aggarwal |
| 1990 | M.J.B. Duff | S. Levialdi | M. Ejiri | G. Borgefors | J. Aggarwal |
| 1992 | J. Aggarwal | S. Tsuji | J. Kittler | G. Borgefors | S. Tanimoto |
| 1994 | J. Kittler | G. Borgefors | J. Toriwaki | G. Sanniti di Baja | J. Bigun |
| 1996 | R.M. Haralick | E. Gelsema | M. Kidode | G. Sanniti di Baja | J. Bigun |
| 1998 | E. Gelsema* | H. Bunke | R. Kasturi | G. Sanniti di Baja | W. Kropatsch |
| 2000 | G. Sanniti di Baja | R. Kasturi | H. Baird | K. Tombre | W. Kropatsch |
| 2002 | R. Kasturi | W. Kropatsch | Y. Shirai | K. Tombre | M. Petrou |
| 2004 | W. Kropatsch | K. Tombre | S. Ablameyko | D. Laurendeau | M. Petrou |
| 2006 | K. Tombre | S. Ablameyko | K. Ikeuchi | D. Laurendeau | K. Boyer |
| 2008 | B. Lovell | A. Antonacopoulos | I. Nyström | D. Laurendeau | K. Boyer |

\* E. Gelsema died while in office; president's post then taken over by H. Bunke, 1st Vice President

**Table 3.  IAPR Officers – 1973-2008**



**Left-to-right:  H. Freeman, K.S. Fu, T. Sakai, and T. Pavlidis – at the 4th ICPR in Kyoto (1978)**

## 30. General List of IAPR Activities since its Founding

IAPR continues to hold its biennial conferences (ICPR) in even-numbered years, with attendance steadily increasing. (It reached well over 1000 by 2008**.**)  Periodically small changes had to be made in the Constitution and Bylaws as the organization evolved.  Thus during the 1992-94 period the provision for individual membership was deleted and only organizational membership was allowed.  The change made sense since the individual-member concept had become outdated and IAPR had become a strictly "society-member" type of organization.

The category of Individual Member was originally created to allow persons from countries that did not have an organization devoted to pattern recognition to participate in IAPR activities.  The category never attracted many members, and in 1994 it was abolished by an amendment to the IAPR Constitution.

From its founding in 1976, IAPR was accepted by IFIP (International Federation for Information Processing) as an Affiliate Member.  In this way, IFIP could relegate the area of pattern recognition to IAPR and would not have to concern itself with this aspect of information processing.  This, of course, required that IAPR send a representative to the annual IFIP meetings and give a report on its activities.  From 1976 until 1989 Prof. H. Freeman served as the IAPR representative to IFIP.  Dr. Pierre Devijver then took over this responsibility.  Some years later, the post of a separate IFIP representative was abolished and the responsibility placed on the shoulders of the 2$^{nd}$ Vice President.  Over the years, interest in the relationship deteriorated, IAPR participation in IFIP meetings tended to be sporadic, and in 2008 IFIP notified IAPR that it was ending the Affiliate-Member relationship.

Over the years IAPR has expanded and its Governing Board has found it helpful to create a variety of *Standing Committees* to assist the Executive Committee in the day-to-day running of the organization.  As of the end of 2008, these were:

> Advisory Committee
> Conferences & Meetings Committee
> Constitution & Bylaws Committee
> Education Committee
> Fellow Committee
> Governing Board
> ICPR Standing Committee
> Industrial Liaison Committee
> J. K. Aggarwal Prize Committee
> King Sun Fu Prize Committee
> Membership Committee
> Nominating Committee
> Publications & Publicity Committee

In the mid-1990s, a website was created to make IAPR information available to its members electronically.  The website, which initially was handled on a volunteer basis, was  turned over to a commercial organization for professional management in 2006.  It is http://www.iapr.org and carries information on current IAPR news, upcoming conferences, committee memberships, and other useful information about IAPR.

It is important also to recognize the devoted individuals who staffed the IAPR Secretariat, specifically Susan Duff  from 1992 to 2004 and, since then, Linda O'Gorman.  Without their diligent efforts much of IAPR history would have been lost.

## 31. Technical Committees

The expanding interest in the field of pattern recognition has made it desirable to create ever more *Technical Committees* that specialize in a particular aspect of the field.  As of the end of 2008, there were a total of 18 Technical Committees, as follows:

TC-01 - Statistical Pattern Recognition Techniques
TC-02 - Structural & Syntactical Pattern Recognition
TC-03 - Neural Networks & Computational Intelligence
TC-04 - Biometrics
TC-05 - Benchmarking & Software
TC-06 - Computational Forensics
TC-07 - Remote Sensing and Mapping
TC-08 - Machine Vision Applications
TC-10 - Graphics Recognition
TC-11 - Reading Systems
TC-12 - Multimedia and Visual Information Systems
TC-13 - Pattern Recognition in Astronomy & Astrophysics
TC-14 - Signal Analysis for Machine Intelligence
TC-15 - Graph Based Representations
TC-16 - Algebraic and Discrete Mathematical Techniques in Pattern Recognition & Image Analysis
TC-18 - Discrete Geometry
TC-19 - Computer Vision for Cultural Heritage Applications
TC-20 - Pattern Recognition for Bioinformatics

(TC-09 and TC-17 have been dissolved and their activities taken over by other TCs.)

## 32. Ethics Policy

In 2006, in response to a request by the then IAPR President, Dr. Karl Tombre, the IAPR Advisory Committee was charged with coming up with a *Statement of Ethics* that would establish IAPR's policy with regard to instances of plagiarism and other ethically deplorable activities. A Statement of Ethics was issued and adopted by the Governing Board in 2008. It is available to viewers on the IAPR website, http://www.iapr.org. The Standing Committee on Conferences and Meetings was charged with ascertaining that organizers seeking IAPR support comply with the Statement of Ethics.

More recently it was discovered that a number of persons submitted papers for presentation at an IAPR conference and publication in the conference's proceedings but had no intention of personally presenting the paper if the paper was accepted.  To avoid this problem the Advisory Committee in 2009 was charged with coming up with a recommendation for dealing with this situation. Such a recommendation was prepared and submitted to the Executive Committee in the spring of 2009.

## 33. Conclusion

IAPR has come a long way since the idea for it first emerged in 1973. It is now a respected international organization, with well-attended biennial conferences, a permanent secretariat, an informative website, and 42 national member societies, spanning every continent.  Pattern recognition has become a recognized field of engineering activity, both in academia and in the industrial sphere where it can point to numerous innovative products it spawned. Like in other engineering areas, much credit must go to the pioneers who had the vision to create the organization and push it forward.  Now the challenge rests on the shoulders of the current and future leaders to adapt it to the ever-changing needs and desires of humanity.

## Acknowledgments

# APPENDIX 1

## STANDING CONFERENCE COMMITTEE

The 29 Members of the Standing Conference Committee and their national societies just prior to the first IJCPR in Washington, DC in late October 1973:

| | | | |
|---|---|---|---|
| K.S. Fu | USA - Chairman | D. G. Lainiotis | USA |
| C.K. Chow | USA - Vice Chairman | M. Nadler | France |
| H. Freeman | USA - Vice Chairman | J.I. Nagumo | Japan |
| R.S. Ledley | USA - Secretary | R. Narasimhan | India |
| M. Aizerman | USSR | T. Orhaug | Sweden |
| P.W. Becker | Denmark | E.A. Patrick | USA |
| E.R. Caianiello | Italy | K. Preston, Jr. | USA |
| T.M. Cover | USA | A. Rosenfeld | USA |
| S. Csibi | Hungary | D. Rutovitz | UK |
| O. Duda | USA | T. Sakai | Japan |
| S.J. Dwyer III | USA | J-C. Simon | France |
| A. Guzman | Mexico | T. Vamos | Hungary |
| L.N. Kanal | USA | C.J.D.M. Verhagen | The Netherlands |
| H. Kazmierczak | F.R. Germany | M.S. Watanabe | Japan |
| V.A. Kovalevsky | USSR | | |

# APPENDIX 2

## FIRST INTERNATIONAL JOINT CONFERENCE ON PATTERN RECOGNITION

30 October – 1 November 1973
Washington, D.C. ,  U.S.A.

According to the advance program, the following numbers of papers were accepted from 10 countries:

| | | | |
|---|---|---|---|
| U.S.A. | 58 | Japan | 14 |
| Italy | 4 | F.R. Germany | 4 |
| France | 3 | U.S.S.R. | 2 |
| Belgium | 1 | Bulgaria | 1 |
| Great Britain | 1 | Hungary | 1 |

89 in total

There were 15 sessions

> 4 sessions on Mathematical Methods with 24 papers
> 2 sessions on Character Recognition with 12 papers
> 2 sessions on Biomedical Applications with 12 papers
> 2 sessions on Picture Processing with 11 papers
> 1 session on Speech with 7 papers
> 1 session on Syntactic Methods with 6 papers
> 1 session on Adaptive Pattern Recognition with 6 papers
> 1 session on Scenes and Structures with 7 papers
> 1 session on Remote Sensing Applications with 4 papers and a panel discussion.

There were two workshops:
> ➢ on Bridging the Gap between Theory and Implementation in Pattern Recognition Research (chairman:  L.N. Kanal)
> ➢ on Problems in Pattern Recognition Research (chairman E.A. Patrick).

There was one panel on Automated Imagery Analysis.

## Conference Committee

| | |
|---|---|
| K.S. Fu | Conference Chairman |
| C.K. Chow and  H. Freeman | Vice Chairmen |
| Rosenfeld, T.M. Cover, & L.N. Kanal | Co-Chairmen Technical Program |
| R.S. Ledley | Secretary and Local Arrangements Chairman |

## Attendance

Japan 14, France 8, Great Britain 7, Italy 4, Sweden 2, Thailand 1, Switzerland 1,
U.S.A. 241, F .R. Germany 14, Canada 8, Denmark 6, Netherlands 3, Belgium 2,
South Africa 1

312 in total from 14 countries.

Sponsor members received a reduction of $10 in the conference fee of $55 ($65 for late registrants); the student fee was $8 (late registrants $10).

# Appendix 3

## INITIAL CONSTITUTION OF THE INTERNATIONAL ASSOCIATION
## FOR PATTERN RECOGNITION

*Note*: This is the Constitution as *initially adopted*. Over the years is has been amended on numerous occasions by the Governing Board as required by changing conditions. For a *current* copy of the Constitution see the IAPR website, http://www.iapr.org.

### Article 1: Name  Section 1.1

The organization shall be known as the International Association for Pattern Recognition. Hereafter 'Association' shall refer to this organization.

### Article II. Field of interest and objectives of  the Association

*Section 2.1*

The field of interest is Pattern Recognition and the allied branches of engineering, together with the related arts and sciences; the objective is the advancement of theory and practice in the field of interest.

*Section 2.2*

The Association shall organize International Conferences on Pattern Recognition, may publish periodicals, newsletters, proceedings or special publications and may practice all other proper means to further its objectives

### Article III: Members

*Section 3.1*

Members may be either scientific or professional organizations or individuals working in the field of interest.

*Section 3.2*

Both types of members shall be entitled to all rights of the Association in as far as practical. The Bylaws shall provide criteria and procedures for enrollment of organizations and individuals.

### Article IV: Officers

*Section 4.1*

The Association shall have a Governing Board and an Executive Committee,

*Section 4.2*

The Governing Board shall consist of representatives of the member organizations and of the individual members, designated or elected by procedures specified in the Bylaws.

*Section 4.3*

The Executive Committee shall consist of the following officers: chairman, vice chairman, past chairman, secretary, treasurer, chairman next International Conference, and past chairman of the Conference. Officers shall be elected by a procedure specified in the Bylaws.

*Section 4.4*

The chairman and the secretary of the Executive Committee shall act as the chairman and the secretary of the Governing Board.

*Section 4.5*

Only members of the member organizations and individual members are eligible for any office. Names of candidates for office shall be not submitted or presented without their prior consent.

*Section 4.6*

The term of office of the members of the Governing Board shall be four years; the term of office of the officers of the Executive Committee shall be two years. Re-election is permissible with the restriction that the length of uninterrupted duty of chairman, vice chairman or secretary of the Executive Committee shall be four years at most.

## Article V: Duties of the Officers

*Section 5.1*

The chairman assisted by the vice-chairman shall be responsible for the overall administration and leadership of the Association. He or she presides at meetings of the Governing Board and Executive Committee, and provides liaison between these two bodies.

*Section 5.2*

The vice-chairman shall be responsible for the duties of the chairman in case of absence.

*Section 5.3*

The secretary shall handle correspondence and maintain a correspondence file, and record minutes of the Governing Board and the Executive Committee.

*Section 5.4*

The treasurer shall prepare the budget and maintain records of receipts and expenditures, unless (part of) this task is executed by officers of an affiliated organization.

*Section 5.5*

The chairman of the next International Conference shall be responsible for the organization of this conference. The responsibility may be shared with a committee, nominated by him.

## Article VI: Financing

*Section 6.1*

The general financial policy of the Association, including the amount of eventual annual dues, and the budgets of the Conference, shall be discussed and adopted by the Governing Board. The Executive Committee shall be responsible for the execution of the general financial policy and for detailing the general policy. In case of emergency, and when there is no real opportunity to consult the Governing Board, the Executive Committee may make decisions conflicting with the adopted general policy of the Governing Board. The Executive Committee will have to render account of its financial actions.

The Bylaws shall provide procedures concerning the authority of representatives and officers to bind the Association in financial affairs.

## Article VII: Affiliation

*Section 7.1*

The Association may affiliate with international organizations. The intention of this affiliation is to facilitate cooperation in related fields, the coordination of conferences, and the acquisition of facilities as to conferences, secretariat and treasury. The Governing Board shall have the final decision on conditions and procedures relating to such affiliations.

## Article VIII: Committees

*Section 8.1*

The Governing Board and the Executive Committee may set up committees. The Governing Board shall elect a Nominating Committee. The functions of this committee shall be described in the Bylaws.

## Article IX: Meetings

*Section 9.1*

A bi-annual meeting of the Governing Board of the Association shall be held during the International Conference. The Executive Committee shall hold meetings at such times as deemed necessary to carry on the management of the Association. The Bylaws shall provide procedures for obtaining decisions by the Governing Board and the Executive Committee both from the floor at a meeting and by written votes of their members in the case of a mail ballot.

*Section 9.2*

If at least 5 member organizations or 50 individual members ask for a general meeting of the Association concerning one or more specified, items, the Executive Committee shall organize such a meeting during the next International Conference.

If at least 5 member organizations or 50 individual members ask for a mail ballot concerning one or more specified items, the Executive Committee shall organize such a mail ballot.

The Bylaws shall provide procedures for obtaining decisions both at a general meeting of the Association or by a mail ballot. Such decisions are binding the Governing Board and the Executive Committee.

## Article X: Regions

*Section 10.1*

Regional committees may be established if members of a region wish to do so. A region comprises a number of member organizations in a particular geographical area. Each regional committee shall conduct its activities within the Constitution and Bylaws of the Association.

## Article XI: Conferences

*Section 11.1*

A bi-annual International Conference will be organized unless special circumstances prevent it. The Governing Board shall ensure that these Conferences take place successively in different parts of the world. The Bylaws shall provide procedures concerning the organization of conferences.

## Article XII: Publications

*Section 12.1*

The Association may publish periodicals, journals, newsletters, proceedings, or special publications. The general policy concerning publications shall be determined by the Governing Board. A special committee may be established for this purpose, or the Executive Committee may take care of it.

*Section 12.2*

Each member organization and each individual member shall receive notice regarding meetings, conferences and other pertinent functions and activities of the Association. The Association may charge for sending this information to individuals.

## Article XIII: Amendments

*Section 13.1*

Amendments to the Constitution of the Association or its Bylaws may be initiated by members of the Governing Board or the Executive Committee or by petition from at least 5 member organizations or 50 individual members.

The Bylaws shall provide procedures to handle the amendments.

## Article XIV: Temporary provisions

*Section 14.1*

The Standing Committee for International Joint Conferences on Pattern Recognition will serve as Governing Board until the procedures mentioned in this constitution and the Bylaws are put into effect.

- End -

7-Oct-09