THE MEMORANDUM
OF
INDIAN CRYOGENIC COUNCIL (ICC)

P.O. Jadavpur University, P.B. No. 17005, Calcutta – 700 032

(Registered under the West Bengal Societies Registration Act XXVI, 1961, Registration Number S/16588 of 1975-76, dated 4-9-1975)

1. Name of the Society: **INDIAN CRYOGENIC COUNCIL** (ICC in short)

N.B. –Cryogenics herein connotes the Science and Technology of the Production , Maintenance and Measurements of Low Temperature, Basic Research in Low Temperature Physics, Theoretical and Experimental Studies at Low Temperature, Studies on Superconductivity, Development of Superconducting Materials, Superconducting Magnets and other Devices, Development of Liquefiers, Closed Cycle Refrigerators,
Cryogen handling & Storage Systems, application of cryogenic technology in the field of Accelerator, Tokamak, Space and Medical and any other application

2. PREAMBILE:

Considerable interest was created in 1973by the National committee for the International Institute of Refrigeration (NCIIR) and the National Committee for Science and Technology (NCST) on Cryogenics, as a technology distinct from refrigeration and of strategic importance in a wide variety of applications such as in Space (Satellite Launch Vehicle), Missiles, Atomic Energy, Particle Accelerators, Fusion Reactors, Superconducting applications (such as MRI, NMR, Fast Transport, Power Transmission etc.) Fertilizer plants, Fuel, Petrochemicals, Gas production, Metal fabrication, Food preservation, Preservation of Human Blood and Organs, Animal husbandry, Cryobiology, Cryomedicines, Cryosurgery , Education and Research and so on. Realizing the strategic importance of Cryogenics and its huge impact on Indian Socio-Economic development of the country, the NCIIR in 1973 sponsored four Regional Cryogenic Committees (Delhi-Kanpur, Calcutta, Bombay and Madras-Bangalore regions) to assess and organize Cryogenic Research and Development at the relevant Research Institutes and Universities and coordinate these with the cryogenic Industries in the respective zones (East, West, North and South) in the country. For coordinating the activities of the four zones the NCIIR sponsored an Indian Cryogenic Council (ICC) to be a **Learned Society of Eminent Cryogenists** of the country with the provision that the Regional Cryogenics Commttees (RCCs) would be affiliated later as Autonomous Zonal Branches to the ICC

3. AIMS AND OBJECTIVES OF THE ICC:

1. To promote Cryogenics Education, Training and Research & Development (R&D) and utilize the knowledge for the development of Cryogenics Industry in the country.

2. To bring Cryogenics Research Institutions, Universities, Professionals, Industry (Private and Government) Companies doing business in Cryogenic Equipment and Components and the like on a single platform under the banner of ICC and provide them the opportunity to interact and help each other to solve problems of common interest.

3. To promote Cryogenic Teaching in Universities, Engineering Colleges and IITs so as not to be caught napping when demand mounts from the Indian Cryogenic Agencies involved in Large Scale National Programme (like ITER and ILC and Space)

4. To discuss futuristic trends in Cryogenic Research (both Basic and Applied) from time to time and come up with recommendations to Research Institutions as to what direction they should follow.

5. To organize National and International Symposia, Conferences periodically and regularly so that our young members remain abreast with the latest trends in their respective areas. National Symposia are being held every alternate year by rotation in each of the four Zonal Branches.

6. To liaise and cooperate with the four Zonal Branches so that they remain active and carry on with the objectives of the ICC.

7. To maintain a Directory of the Man Power available in the country and a register of important Cryogenics Projects going on in the country.

8. To maintain and continuously update the website of the ICC (http://www.iuac.ernet.in/iccwbsite/icc.html) which already exists

9. To formulate National Policy on Cryogenics Research and Development and make suitable recommendations time to time to Government Funding Agencies like DST, CSIR, DBT, DRDO, State Councils and other Departments.

10. To attract donations and sponsorships to institute ICC Awards each for best Basic Research, Technology Development, Cryo-Industry and Life Time Achievement, Industrial houses will be approached. A Corpus Fund will be soon created for the purpose.

11. To find means of owning permanent Head Quarter and Zonal Office Buildings and assets by approaching the respective Government Agencies and / or Industrial Houses.

12. To encourage Cryogenics community to publish their quality work in **the Indian Journal of Cryogenics** and to raise the standard of the Journal to International Level through rigorous refereeing.

13. To encourage Zonal Branches to organize Training Programmes / Colloquia in their respective Zones and also bring out News Letters (Annually or Quarterly) about the activities of the zone.

14. To strive for the establishment of a "National Institute of Cryogenics and Superconductivity" solely devoted to Technology Development relevant to Indian needs.

4. HEAD OFFICE/ REGISTERED OFFICE:

The Head Office of the ICC continues to be at Jadavpur University Kolkata.
Unfortunately, there is no Cryogenic Activity, what so ever, at the Jadavpur University. There is no Cryogenic Teaching either and no Low Temperature Research or Development work being carried out. Running ICC activity from the present HO has become redundant. On the other hand, VECC (Variable Energy Cyclotron Centre, Kolkata) has come up as a **hub** for Cryogenic Activity in the eastern part of the country during last decade and a half. VECC is on the world map having built Superconducting Cyclotron and successfully. It has a large team of Young & Experienced Researchers who are participating in ICC activities very enthusiastically**. It is, therefore proposed to shift the HO to VECC so that ICC can grow to the status it deserves**.

5. RULES OF THE INDIAN CRYOGENIC COUNCIL

5.1.1 MEMBERSHIP:

Even though the ICC would like to enlarge its membership list, yet, strict criteria will be followed for the induction of new members. ICC may fix the maximum number of members in future if necessary.

1. **Life Member:** One time Membership Fees only, no Annual Subscription Minimum Qualification: M.Sc. / B.Tech, or B.Sc. / Diploma with five years experience in Cryogenics, Superconductivity or Cryo Industry Membership Fee: Rs. 1100

2. **Fellow:** This fellowship will be awarded to members who have made outstanding contributions to any area of cryogenics and have a minimum of 10 years of experience of research / teaching or development.
   The recommendation for the fellowship will be made by the
   EC (Executive Council) and will be approved at the following General Body Meeting (GBM). EC may nominate a maximum of 5 Fellows every year. To

make up for the past four years when new life members were inducted the EC can nominate 20 additional Fellows.

The minimum educational qualification will be M.Sc. / B.Tech. and must have been a Life Member for at least for 5 years. This condition can, however, be waived by the EC in a meritorious case and in an exceptional situation.

Old ICC Fellows / Honorary Fellows and Foundation Fellows will however continue to enjoy this privilege as before.

3. **Honorary Fellow** : EC can nominate two names with outstanding contribution in the field of cryogenics/ superconductivity (From Abroad and India) in each year for the Honorary Fellow

There will be no fee of any kind for the Fellows.

Fellowship can be awarded to any Life Member of the ICC and also to any one from abroad but again on the recommendation of the EC and finally approved by the GBM.

4. **Organizational / Corporate Member:** Any Industrial / Corporate / Business Organization actively involved in Manufacturing , Marketing, Sales & Servicing of any Cryogenic Material, Product, Components, Devices can become an Organizational Member.

   (a) Life Membership Fee: Rs. 25,000
   (b) Annual Membership Fee: Rs. 2,500

(This Membership too will have to be approved by the GBM)

5.1.2. RIGHTS PRIVILEGES AND OBLIGATIONS OF MEMBERS AND FELLOWS

All members (Life Members, Fellows and Organizational Members) shall have the Following rights and privileges:

1. To take part in GBM and the elections of the ICC Bodies like EC / Office Bearers
2. To inspect accounts of ICC.
3. To receive information / news letters / copy of the Indian Journal of Cryogenics.
4. To attend National Symposia organized under the banner of ICC with concessional registration fee.

5. All Fellows are entitled to write Abbreviated designation FICC after their names.

6. All members and fellows are under obligation to abide by the Memorandum and Rules & Regulations of the ICC and shall endeavour to promote the interest of the ICC.
7. Registration fee concession for ICC Members.
8. Corporate Members will be entitled a minimum 20 % Concession on advertisement / Exhibition fee for any conference/ symposium organised by ICC or in association with ICC

5. 2. THE EXECUTIVE COUNCIL:

The Administration, Direction and Management of the ICC will be provided by an Executive Council (referred to as 'Council' or the 'EC' earlier or hereafter)

5.2.1 Composition: The EC will consist of the Following:

1. President
2. Four Vice Presidents (Ex-Officio Chairmen of the four Zonal Branches of ICC)
3. Secretary (Administration) –
4. Secretary (Technical) : Preferably from the same place of President 5. Treasurer : Preferably from the same place of President
6. Joint Treasurer :
7. Immediate Past President
8. Three members from each Zonal Branch (out of this one may be the Secretary of the Zone itself)
9. Chief Editor, Indian Journal of Cryogenics
10. Nominee of the DST
11. Nominee of West Bengal government

(This adds up to a total of 25)

5.2.2 Term, Election and functions of the Executive Council (EC):

1. The term of the EC will normally be two years and will take over from the month of April and after the General Body Meeting (GBM).
2. The EC will however continue to function even after two years till the election for the next EC are completed and the new EC takes over.
3. The GBM will have the power to extent the term of the President and the EC Members by one more two years term. President, Secretary, Treasurer can not be re nominated by EC for third term for the same post. They can be nominated for other post.
4. The election of the EC Members shall take place at the GBM.
5. The EC will prepare the list of nominees for the post of President and EC Members and will circulate among the ICC Members at least a month before the due date of the GBM. This circular will also invite alternate nominations from the ICC

Members if they so desire. The nominations duly proposed and seconded will be received by the Returning officer (Appointed by EC) . Election officer will conduct the election if required, preferably the same day of GBM and also will announce the results at the GBM

6. In case some position falls vacant due to the resignation of some EC Member for any reason, the President can appoint any ICC Member to that position subject to rectification by the GBM later.
7. In the absence of the President for whatever reason, his duties will be performed by one of the Vice Presidents if available. Otherwise, the senior most ICC Member / Fellow among the EC member will perform his duties.
8. The EC will be empowered to appoint a committee or a sub committee for a specific issue of the ICC if required for the smooth functioning of the ICC.
9. The EC will meet at least twice in a year.
10. The President can invite experts as " Special Invitees" if he feels the expert's participation is going to be useful for a particular issue to be discussed.
11. The quorum for the EC Meeting will be 6 . Out of this 6, Secretary (Administration) or Secretary (Technical) and President should be present in EC.
12. For convening EC Meeting a notice of at least 15 days should be given. However to discuss a crisis situation President will be empowered to convene meeting at short notice.
13. The ordinary method of voting will be by voice vote or show of hands but vote can be taken through ballot if the situation so demands.
14. Minutes of all EC Meeting will be prepared and circulated among all the members to ascertain its correctness. Final version of the Minutes will be circulated among all ICC Members.
15. EC is also responsible for the publication of the Indian Journal of Cryogenics through an Editorial Board and a Chief Editor. It should be the endeavour of the EC to bring this Journal at par with SERC Journals through quality publication.

5.2.3 Powers and Duties of EC

The EC is the Nerve Centre and Custodian of the ICC to organize, manage, frame and implement all the policies of the ICC with the sole aim of keeping it vibrant and always moving with time.

1. In general to supervise and conduct the affairs of ICC and make regulations time to time as may appear conducive to the good administration and achieving the aims and objective of the ICC. These regulations, however, cannot be violative of the constitution and the regulations of the ICC. All the decisions of the EC will have to be placed before the GBM and got approved. The GBM can approve, modify or repeal the decision of the EC.
2. To appoint committees or subcommittees to go in to specific issues related to smooth and effective functioning of ICC.
3. To supervise and make guidelines for the publication of Indian Journal of Cryogenics or any other similar publication.

4. EC will be empowered to make changes in the list of Editors and the Editorial Advisory Board.
5. To realize funds by way of subscriptions, donations, gifts, consultation fees etc under such terms and conditions as are in the interest of the ICC.
6. To oversee the functioning of the four Zonal Branches and issue advisory to them whenever required. ICC too will keep the Zonal Branches abreast of the programmes of the ICC and policy decision whenever necessary.
7. To award grants, prizes etc for promoting aims and objectice of ICC
8. To incur expenditure for the business of the society
9. To enroll new members
10. To Prepare an annual statement of accounts and annual report on the working of ICC and Zonal branches
11. To appoint full time and part time salaried or honorary staff as and when the need arises
12. To enter into collaboration and / or membership with any similar organization / institution.
13. To dissolve a zonal committee if President receives complaints against it duly signed by at least 25 members from that zone. EC also can appoint an adhoc committee in case there is no election / new committee for more than one year after its term is over.
14. To make, alter and repeal Rules and Regulations with the specific concurrence of the President and subject to confirmation by a letter ballot,

15. To ensure proper maintenance of Bank Accounts at the Head Office as well as at the President's Office. These accounts will be operated on the signatures of any two of the three persons, viz; President, Secretary and the Treasurer.

5.2.4 Duties of EC Members

1. President

a) The President shall be the Executive and administrative head of the Society and the other members shall work under his instruction and guidance. He shall preside over all the meetings of Executive Council, General Body Meeting and other special / general meeting.
b) The President will be authorized to act on behalf of the EC and the Society where occasion demands. He will nominate the representative of the society in various governmental and other agencies.
c) To ensure that the rules framed for ICC and the Zonal branches are being followed in letter and spirit
d) In case of non availability of the President for presiding over the meeting, the senior (in age) Vice president will conduct the meeting

2. Vice President

a) In the absence of the President, senior most Vice President will preside over all the meeting

b) In the event of any vacancy in the office of the President arising, Vice-President shall act as President till the election of the next President

3. Secretary (Administration/ Technical)

a) To conduct the correspondance of the Society and of the Council and to sign all letters and papers emanating from respective society office
b) To convene and attend the meetings of the EC, any EC appointed committees and the General Body.
c) To prepare Minutes of all such Meetings and circulate among the members concerned and maintain complete record. d)To make comprehensive report before the GBM about all the activities of the ICC during the intervening period with regard to induction of new members, any donation received, details of all the meetings of the EC, any Training Programme, all important events taken place in the Zonal Branches and any such matter of interest to the ICC Members.

d) To be the EX-Officio member of all the Committees appointed by the President/EC
e) To communicate with Members, Fellows (within India and abroad), institutes and other organizations about administrative, academic and other business of the ICC.

4. Treasurer/ Joint Treasurer

1. To receive all types of payments on behaf of ICC, issue receipts and keep the money in the ICC BankAccount of the respective offices (Head office and Registered Office) and park the excess money in the bank as FD .
2. To make all types of payments on behalf of ICC, disburse salary / honorarium etc. to the staff (permanent or temporary) of the respective offices and keep proper record.

3. To keep exact account of receipts and expenditure of the ICC of respective offices and get it audited by the ICC appointed Auditor every Financial Year.
4. To prepare budget in the beginning of every Financial Year taking in to account the likely receipts and expenditure.
5. To present the audited report before the GBM and circulate among the Members / Fellows

5. Duties of the Editorial Board

1. The Editorial Board (EB) will be constituted by the EC and will consist of persons of eminence and experts in the areas of Low Temperature Physics, Cryogenic Technology, Superconductivity and Cryo Systems / Components.

2. The EB will be responsible for making guidelines for the publication of the Indian Journal of Cryogenics (IJC) so as to bring the status of this journal to International Standard through strict refereeing.

3. To prepare a panel of expert for refereeing covering all areas and updating it on a continuous basis.

4. To keep the publication of the IJC up to date.

5. To ensure the delivery of the issues of IJC to all concerned on time.

6. To invite Review Articles from Peers in India and from Abroad.

5.3 MEETINGS

5.3.1 EC MEETINGS

1 There shall be a minimum two meetings of the EC in every year. The meeting of the council shall ordinarily be called by the Secretary (Administration or Technical) in consultation with the President.. The meeting will preferably be held at the President office or Head office or any other places so as to have maximum no of EC members.

2 Meetings shall be conducted in accordance with normal parliamentary procedure. The Committee shall have regular meetings at such times as are necessary to carry out the business of the Association.

3: A notice of 15 days will be given for every executive committee meeting

4 : **Quorum for the Executive Committee** : The quorum will be formed by at least six members, of which at least one shall be the President and second any of the two Secretaries. If there is no quorum, the meeting shall be adjourned for one hour. For the adjourned meeting, the quorum shall be formed by the presence of at least three members The adjourned meeting cannot take any decision on a matter not included specifically in the agenda for the meeting

5.3.2 General Body Meeting:

1 : All the bona fide members of the association shall constitute the General Body.

2 : **Voting Rights** : Every member will have the right to vote. No member shall have the right to vote by proxy. Every member shall have one vote except the President, who has got a casting vote.

3 **General Body Meeting** : The Annual General Body Meeting shall be held during each calendar year. The announcement will have to be made at least 15 days before the scheduled date of the meeting. One of the GBM will always be held at the venue and time of the National Symposium on Cryogenics

The quorum will be formed by at least five members of the Executive Committee and one tenth of the total membership or a total of twenty five members whichever is less. In case the quorum is not complete, the General Body meeting will be rescheduled after half an hour. The rescheduled meeting will not require any quorum

An extra-ordinary general body meeting can be held if required by the Executive Committee or if requested by more than fifty members of the association

5.4. SAFE CUSTODY OF FUNDS:

5.4.1 The EC will maintain two bank accounts (one at Head Office and another at President Office) preferably a Saving Fund Account in the State Bank of India or any other Public Sector Bank. The surplus money may be kept in a Fixed Deposit. The authorized signatories for the account shall be the President, Secretary (Administration / Technical as the case may be) and Treasurer/ Joint Treasurer. President and any Secretary/ Treasurer can sign the cheques.

Zonal Branches shall also maintain and operate their bank account in the similar way at their respective Head Offices. Statement of Account from each zonal branches should be sent to Head office/ President office every year after auditing

5. 4.2. Income Tax Status of the ICC:

It has been certified by the Commissioner Income Tax, West Bengal-VII, that

(1). That the Indian Cryogenic Council, P.O. Jadavpur University, Calcutta is an institution established in India for a charitable purpose.

(2) That it satisfies the requirements of Section 80G of the Income Tax, Act 1961.

(3) That any sum within the prescribed limits paid by any assessee as donation to the aforesaid institution will be exempt under subsection (1) of the section 80G of Income Tax Act 1961.

5.4.3. Books On Accounts

* Books on Accounts will be maintained by the Head Office of the ICC at Kolkata and also separately at the President,s Office as per the situation.

- The Accounting year will be from April 1 to March 31.
- The statement on account of the preceding year will be presented by the Secretary (Admin)/ Treasurer and Secretary (Technical.)/ Joint Treasurer at the GBM.
- The accounts will be audited annually April to March every year by a Chartered Accountant appointed by the EC in accordance with the Rules applicable to such Societies.
- Whenever the new President is elected, his office will start functioning from that place. The money from the Previous President,s Office will be transferred to the new office within six months after clearing the pending bills etc.
- In case the new President elected is from Kolkata the money from the previous President's Office will be transferred to Registered Head Office Account again within a period of sixth months of the transfer of President's Office.

5.5. Change of Name, constitution, Regulation and Bye- laws

The EC shall have the powers to ammend by- laws or regulations as may be considered necessary in running its business within the frame work of the rules of ICC. EC also can suggest to ICC to alter, modify the rules and regulation at a General Body Meeting. Changes proposed by EC to be informed to all members by post at least 30 days before the GBM. No change in the rules or regulations are valid unless three fourths of the Members who have voted shall be in favor of Proposed Changes. Once the Change is approved in GBM, same should be forwarded to the Registrar for his concurrence.

5.6. Zonal Branches:

5.6.1 The ICC under its Memorandum and Rules originally provided for four regional Cryogenic Committees under it, meant to be Zonal operative arms of the ICC which from January 1, 1980 were renamed ICC North, South, East and West Zonal Branches by a resolution of the 4th Annual General Meeting held on Dec. 18, 1979 at Bombay, and which have jurisdiction over the four broad Zonal Divisions of the country as outlined below will continue to function as per the ICC Memorandum and Rules.

1. **East Zone :** West Bengal, Bihar, Jharkhand, Orissa, Assam, Tripura, Meghalaya, Manipur, Nagaland, Arunachal Pradesh, Mizoram and Sikkim
2. **West zone :** Maharashtra, Gujrat, Madhya Pradesh, Chhattisgarh and Goa
3. **North Zone:** Uttar Pradesh, Uttarakhand, Rajasthan, Haryana, Punjab, Jammu and Kashmir 4. **South Zone:** Tamil Nadu, Andhra Pradesh, Telangana, Karnataka, Kerala and Pondicherry.

5.6.2 Rules & Regulations for the Zonal Branches:

1. Each of the four Zonal Branches will be headed by a Chairman assisted by a Secretary, a Treasurer and an Executive Committee, all elected by the Members and the Fellows of the respective Zone.

2. All the Zonal Branches will carry out activities related to Organizing Training, Cryogenic Courses, Colloquia, Symposia, Conference under the Banner of ICC and the overall guidance of the President / EC of the ICC. In carrying out these activities the aim will be to meet the objectives of the ICC and to strengthen it. Zonal Branches will have complete autonomy in the execution of their activities.

3. The Zonal Branches will remit 100 % of the Admission and Membership Fee to the Head Office. This money will be kept in a Corpus Fund and the principal amount under no circumstance will be used for meeting the running expenses of the ICC.

4. Whenever a Zonal Office organizes a Symposium, Conference, Workshop, Exhibition or a Training Programme under the banner of ICC, 30 % of the saving from such Programme will be sent to the Head Office. This money will be utilized to bring out the Special Issue of the Indian Journal of Cryogenics (IJC) which will be the Proceedings of the Symposium. At the same time The President / Head Office can sanction financial grant up to Maximum Rs. 50,000 to the Zonal Branch for organizing an event if the Branch so requests the Head Office. The money so advanced can be refunded to the Head Office after the event is over and the Branch is in position to do so.

5. All the four Zonal Branches will send Activity Report to the President Office annually including the fund position and the Balance Sheet.

6. The Chairman and the Officer Bearers of the Zonal Branch have to be the Members / Fellows from that particular Branch only. In case a Member / Fellow shifts to other place he / she must inform the concerned Branches and the Head Office to get his / her name entered in to the list of relevant Branch. The Executive Committee can invite non member experts during its meetings as special invitees but they will not have voting right in the meeting. The Committee can amend their Bye-Laws time to time if the local activities so require.

7. The Zonal Executive Committees will have a term of two years similar to that of the EC and will be elected by the Members and Fellows of the Zonal Branch. This two years term may be extended by another one term subject to the approval of General Body of the respective Zone. Again, Chairman, Secretary, Treasurer can not be nominated for 3rd term for the same post.

8. The President ICC will have power to dissolve a Zonal Committee if he receives complaints against it duly signed by more than 25 % of the total strength of the Zonal Members / Fellows. The President however will have to place the complaint before the EC and take a collective decision. The President can then appoint an Adhoc Committee to run the business of the Zonal Branch. Fresh election for the new Committee will, however, have to be completed within a year. Similarly EC (ICC) can appoint an adhoc committee for any zone in case there is no election / new committee for more than one year after the term of the previous Zonal Committee was over.