



सत्यमेव जयते

INDIA NON JUDICIAL

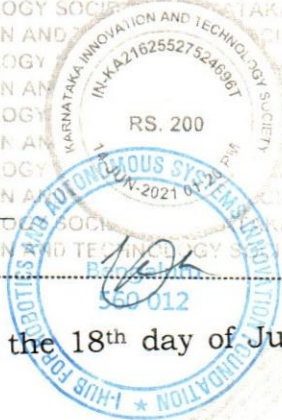
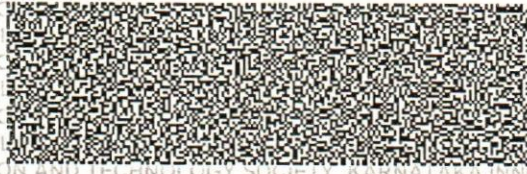
**Government of Karnataka**

Rs. 200

**e-Stamp**

**Certificate No.** : IN-KA21625527524696T  
**Certificate Issued Date** : 14-Jun-2021 01:20 PM  
**Account Reference** : NONACC (FI)/ kacrsf08/ SHANTHINAGAR/ KA-BA  
**Unique Doc. Reference** : SUBIN-KAKACRSFL0812280761549717T  
**Purchased by** : KARNATAKA INNOVATION AND TECHNOLOGY SOCIETY  
**Description of Document** : Article 37 Note or Memorandum  
**Description** : MOA  
**Consideration Price (Rs.)** : 0  
 (Zero)  
**First Party** : KARNATAKA INNOVATION AND TECHNOLOGY SOCIETY  
**Second Party** : I HUB BANGALORE  
**Stamp Duty Paid By** : KARNATAKA INNOVATION AND TECHNOLOGY SOCIETY  
**Stamp Duty Amount (Rs.)** : 200  
 (Two Hundred only)

सत्यमेव जयते



Please write or type below this line

**Memorandum of Agreement**

This Memorandum of Agreement ("MoA") is entered into on this the 18<sup>th</sup> day of June 2021 ("Effective date") at Bengaluru.

**BY AND BETWEEN**

**KARNATAKA INNOVATION AND TECHNOLOGY SOCIETY**, [formerly known as Karnataka Biotechnology and Information Technology Services] a society duly registered under the Karnataka Societies Registration Act, 1960, having its registered office at BMTCESE Building, 4<sup>th</sup> Floor (TTMC 'B' Block), B.T.S Road, off K.H. Road, Shanthinagar, Bengaluru - 560 027 and represented by the Managing Director, Smt. Meena Nagaraj C.N. (hereinafter referred to as "**KITS**" which expression shall, unless repugnant to or excluded by the context hereof, be deemed to mean and include its successors in interest and permitted assigns) of the **FIRST PART**;

**Statutory Alert:**

1. The authenticity of this Stamp certificate should be verified at 'www.shcilestamp.com' by using e-Stamp Mobile App of Stock Holding.
2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority.

Managing Director  
 Karnataka Innovation and Technology Society (KITS)  
 Government of Electronics, IT, Bt and S&T  
 Govt. of Karnataka





AND

**I-HUB FOR ROBOTICS AND AUTONOMOUS SYSTEMS INNOVATION FOUNDATION**, a section 8 company incorporated under Companies Act 2013, with its registered office at Society for Innovation and Development, Innovation Centre Building, Indian Institute Science, Bangalore 560012, represented by its authorised signatory, (hereinafter referred to as **"I-Hub-ARTPark"** which expression shall, unless repugnant to or excluded by the context hereof, be deemed to mean and include its successors in interest and permitted assigns) of the **SECOND PART**.

AND

**INDIAN INSTITUTE OF SCIENCE**, a trust registered under the Charitable Endowments Act of 1890 and a centrally funded technical institution, an institute of eminence, and an autonomous body funded by Ministry of Human Resource Development, Government of India, situated at Sir C.V. Raman Road, Bangalore - 560 012, Karnataka, represented by its Registrar/ Duly Authorized Signatory (hereinafter referred to as **"IISc"**, which expression shall, unless repugnant to the context or meaning thereof, include successors-in-interest, nominees and permitted assigns) of the **THIRD PART**;

For the purposes of this MoA, **KITS, I-Hub-ART Park** and **IISc** shall be individually referred to as **"Party"** and collectively as **"Parties"**.

All the Annexures and their contents shall be binding on the Parties and form a part of this MoA.

Whereas:

- A. The Government of Karnataka (hereinafter **"Government / GOK / Government of Karnataka"**) has approved the proposal of the **Artificial Intelligence and Robotics Technologies Park (ARTPark)** through **KITS** vide G.O. No. **ITBT 44 ADM 2020** dated **18<sup>th</sup>**

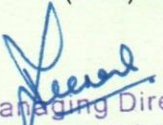
  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka





**November 2020("Government Order")**. The Government Order is enclosed herewith as **Annexure A**.

- B. I-Hub-ARTPark has been established as an IISc promoted Section 8, Not-for-Profit company, in the name and style of **I-Hub for Robotics and Autonomous Systems Innovation Foundation (I-Hub)** on **16<sup>th</sup> September 2020**, as a collaboration between IISc, AIOT Foundry Private Limited and the Department of Science and Technology, Government of India (**"DST"**).
- C. I-Hub-ARTPark is governed by the terms of a tripartite agreement entered into on **14<sup>th</sup> December, 2020** by and between IISc, I-Hub-ARTPark and the President of India, acting through the Mission Director, DST (**"GOI Agreement"**).
- D. DST, through the Mission Office NM-ICPS (**"Mission"**) has already released a grant of INR 7.25 Crores (Cr.) to IISc as an initial grant towards I-Hub-ARTPark, and has committed to providing a maximum INR 170 Cr in total over the next five years.
- E. I-Hub-ARTPark will help create and maintain next generation Artificial Intelligence (**"AI"**), Robotics and advanced communication facilities (5G), curate technology innovation projects and help nurture techno preneurship activities. Physical and virtual infrastructure will be created in IISc campus (both in Bengaluru and in Challakere) as well as outside IISc campus. I-Hub-ARTPark will also develop skills training modules and run techno preneurship programs to help create start-ups in the emerging area of AI and Robotics systems. The goal is to develop the AI and Robotics ecosystem in Karnataka with I-Hub-ARTPark acting as a nodal agency that will create technologies for Artificial Intelligence, Robotics and Autonomous Systems.
- F. The Government Order has nominated Indian Institute of Science (IISc) as the 'Anchor Institution'. As per the Government Order, KITS

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka





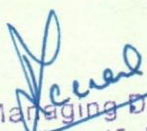
shall transfer the required grants to I-Hub-ARTPark for setting up and operationalizing I-Hub-ARTPark over a period of 5 (five) years.

- G. A separate bank account has been opened in the name of ARTPark for receipt of Grants for the Project (as hereinafter below).
- H. The proposal received from IISc to establish I-Hub-ARTPark, dated 20<sup>th</sup> June 2020, is enclosed to this MoA as **Annexure B** and shall be referred to as "**Project**" hereinafter for the purpose of this MoA.
- I. Hub Governing Board ("**HGB**") has been constituted to advise on overall management of the I-Hub-ARTPark, enclosed as **Annexure C**, and in compliance with the terms of the GOI Agreement. The HGB will also review the overall progress made by I-Hub-ARTPark and recommend the release of next tranche of funds by KITS from time to time.
- J. A Project Monitoring Committee ("**PMC**") will be formed to review the work conducted by I-Hub-ARTPark at the operational level. The committee will meet up to 2 (two) times a year. A Project Advisory Committee ("**PAC**") will also be formed with invitees from all relevant stakeholders to advise the PMC as and when necessary and called for by PMC. Details of both PMC and PAC are enclosed as **Annexure D**.
- K. In view of the Government Order and subsequent deliberations, the Parties have entered into this MoA for utilisation of funds provided by GOK to I-Hub-ARTPark, as per the terms of this MoA.

This MoA defines the roles and responsibilities of the participating agencies for operationalisation of I-Hub-ARTPark and other matters related to it.

#### **1.0 ROLE OF KITS, DEPARTMENT OF ELECTRONICS, IT, Bt AND S&T:**

- 1.1. To provide Grants for over a period of 5 years from the Effective date of signing the MOA.
- 1.2. Budgetary Details are as given in **Annexure E**.
- 1.3. Conditions of Grant support is given in **Annexure F**.

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka






- 1.4. KITS shall draw the Grants under IT Policy Head of Account and transfer the Grants to I-Hub-ARTPark to operationalize the Project.
- 1.5. To provide specific policy support for initiatives involving startups and manufacturing in Robotics and Autonomous systems, or any other initiatives pertaining to I-Hub-ARTPark's areas of interest.
- 1.6. Creation of Special Economic Zones (SEZ) for companies incubated/set-up by I-Hub-ARTPark.
- 1.7. Support setting up of 5G testing infrastructure by I-Hub-ARTPark.
- 1.8. Support for running pilots in various application verticals like agriculture, mining, healthcare, education, smart cities (utility mapping, road history, data smart cities, drone corridors etc.), transportation/ logistics, etc.
- 1.9. Support in obtaining statutory and regulatory clearances, if any.
- 1.10. KITS, on behalf of the Government of Karnataka, has agreed to provide Grant support to I-Hub-ARTPark amounting to INR 60,00,00,000/- (Sixty crores) for the period of 5 years from the Effective Date ("**Grant**" / "**GoK Grant**").

KITS shall not be responsible to any claims of third parties in the setting up and operationalisation of I-Hub-ARTPark.

## **2.0 ROLE OF I-Hub-ARTPark:**

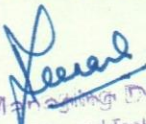
- 2.1. Receive and manage the GoK Grants and use it to achieve the various objectives set forth in this MoA.
- 2.2. Use the GoK Grant to set up research facilities in IISc Campus or outside.
- 2.3. Help manage and maintain such facilities.
- 2.4. Evolve and implement a plan to share of these facilities with other academic and industry collaborators.

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka





- 2.5. Run various mission mode projects and support partnering academic institutions by giving grants as needed.
- 2.6. Run the fellowship program to identify and support students from various colleges/universities in Karnataka to work in the areas of interest to I-Hub-ARTPark.
- 2.7. Run the training and skills development program in collaboration with IISc.
- 2.8. Help translate technologies that get developed as part of the mission mode projects and look actively to commercialize it.
- 2.9. Run a Technopreneurship program to develop technopreneurs who will create new startups based on the mission mode projects at I-Hub-ARTPark.
- 2.10. Set up collaborations with various industry and academic partners.
- 2.11. Seek additional funding support from various funding agencies, independently, in collaboration with IISc through collaboration with other partnering agencies.
- 2.12. Work closely with and leverage the expertise and networks of the following four major categories of stake holding bodies: government, industry, academia and existing ecosystem players.
- 2.13. The role of I-Hub-ARTPark shall be to operationalise the Project from the Grants to be received from KITS.
- 2.14. I-Hub-ARTPark will be the implementing agency for the setting up and operationalising the Project, initially for a period of 5 years.
- 2.15. I-Hub-ARTPark shall operationalise the Project as per the directions of the Hub Governing Board, Project Monitoring Committee and Project Advisory Committee.
- 2.16. I-Hub-ARTPark shall abide by the terms and conditions listed at **Annexure F** to this MoA.

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka






- 2.17. I-Hub-ARTPark shall ensure effective utilization of the Grant given by KITS for the purpose for which it was granted and shall ensure timely and smooth implementation of the Project.
- 2.18. I-Hub-ARTPark shall bring in the expertise, advisory and infrastructure, as required in operationalizing the Project. I-Hub-ARTPark shall facilitate in providing lab and infrastructure facilities available in IISc to KITS, on the request of KITS.
- 2.19. I-Hub-ARTPark shall be responsible to comply with all applicable laws and processes to operationalise the Project.
- 2.20. I-Hub-ARTPark shall ensure that it accomplishes the purpose for which it is formed under the Government Order.
- 2.21. I-Hub-ARTPark shall be responsible to achieve the deliverables as mentioned in **Annexure G**.
- 2.22. I-Hub-ARTPark shall be responsible to achieve the milestones and target dates as per **Annexure H**.

### 3.0 ROLE OF IISc:

I-Hub-ARTPark is promoted by IISc, with IISc Director as the chairperson for the Hub Governing Board. IISc will work towards meeting all the proposal goals through I-Hub-ARTPark. I-Hub-ARTPark's headquarters will be located within IISc campus. IISc will provide the required space needed for I-Hub-ARTPark's facilities. IISc will also provide all the necessary support for research and teaching activities for I-Hub-ARTPark. IISc faculty and students will be involved in several projects of I-Hub-ARTPark. IISc faculty will also help provide advisory inputs to the technical activities of ARTPark as well as help bring in linkages with other academic institutions within Karnataka, India and other countries.

More specifically IISc will:

- Provide space to setup advanced laboratory facilities and test bed to I-Hub-ARTPark.

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka





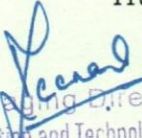
- Provide space to house the offices and headquarters of I-Hub-ARTPark.
- Form I-Hub-ARTPark's Hub Governing Board with IISc Director as the Chairperson and will have Additional Chief Secretary, Department of Electronics, IT, Bt and S&T, GoK and other eminent people as members, in accordance with the GOI Agreement.
- Drive the research and innovation aspects of mission projects.
- Provide facilities to I-Hub-ARTPark to support imparting of technical training and skills development.
- IISc and I-Hub-ARTPark have entered into a memorandum of agreement that will govern the IP, funding, manpower and facilities usage

#### **4.0 RIGHTS OF OWNERSHIP of TECHNOLOGY TRANSFER AND UTILIZATION**

The rights of ownership of technology and terms of transfer and utilisation of such technology, including associated intellectual property rights, shall be in accordance with I-Hub-ARTPark's IP Policy, as may be approved by the Hub Governing Board.

#### **5.0 MONITORING**

- 5.1 Proposed constitution of the Hub Governing Board is as annexed in **Annexure C**. The Director, IISc shall be the Chairperson of the Hub Governing Board.
- 5.2 The Hub Governing Board will periodically review and monitor the implementation and outcomes of activities undertaken by I-Hub-ARTPark from time to time.
- 5.3 The Office of the Accountant General (AG), GOK, shall at their discretion, have the right of access to the books and accounts of I-Hub-ARTPark for grants received from KITS. KITS also reserves the

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka





right to inspect the books of accounts of I-Hub-ARTPark, subject to the terms set forth in Annexure F to this MoA. I-Hub-ARTPark shall facilitate such inspections.


## 6.0 DURATION OF MEMORANDUM OF AGREEMENT

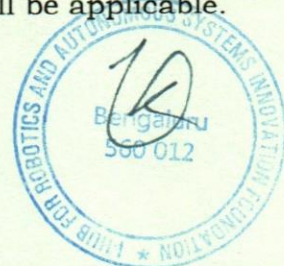
This memorandum of agreement shall be effective from the Effective date and remain valid for a period of five (5) years, with option to duly extend the duration on mutually agreed terms ("**Term**").

KITS may terminate the Grant at any stage if it is convinced, by way of written recommendation of the HGB, that there is a breach of the terms and conditions of this MoA, the Grant has not been properly utilized, there exists misappropriation of such Grant or appropriate progress has not been made in the Project. In the event KITS terminates the Grant, I-Hub-ARTPark shall hand over all documents related to technical details and equipment purchased for the Project with such Grant. On termination of the Project, I-Hub-ARTPark shall return the unspent Grant amount to KITS. The MoA may be terminated for any internal administrative reasons or other such decision made by the Government of Karnataka that necessitates such termination or renders the issuance of Grant(s) to I-Hub-ARTPark no longer viable. The Hub Governing Board shall give appropriate directions in the matter of termination and consequences of termination which shall be binding on the Parties.

## 7.0 ARBITRATION

7.1 All disputes arising out of or in relation to this Agreement shall be settled amicably by the Parties within 30 [thirty] days of the first initiation of the dispute. In the event no amicable settlement is arrived at within a period of 30 [thirty] days from the date of first initiation of the dispute by one Party to other, the Parties shall resolve the dispute by means of arbitration pursuant to the Arbitration and Conciliation Act, 1996. The Arbitration & Conciliation Centre Rules, 2012, of Arbitration and Conciliation Centre Bangalore shall be applicable.

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka





7.2 The arbitration shall be conducted by an arbitral tribunal comprising of 3 (three) arbitrators. KITS shall appoint one arbitrator and I-Hub-ARTPark shall appoint one arbitrator. The two arbitrators appointed by the Parties shall appoint the third arbitrator of the arbitral tribunal.

7.3 The arbitration proceedings shall be conducted in English language only and the venue for arbitration shall be at Bengaluru.

7.4 The award of the arbitral tribunal shall be final and binding on the Parties.

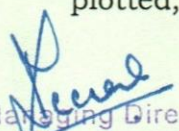
## **8.0 GOVERNING LAW, JURISDICTION AND DISPUTE RESOLUTION**

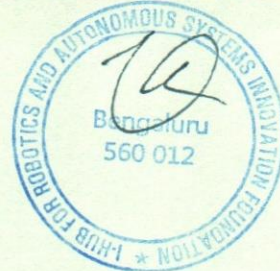
8.1 This MoA shall be governed by and interpreted in all respects in accordance with the Applicable Laws of the Republic of India.

8.2 Subject to the Arbitration Clause, the Parties hereby submit to the exclusive jurisdiction of the courts of Bengaluru.

## **9.0 OBLIGATIONS OF CONFIDENTIALITY**

9.1 Confidential Information includes all information relating to and concerning business operations, products, applications, services and any commercial, financial and technical or non-technical detail including without limitation or exception any and all information shared regarding systems, designs, specifications, technologies, techniques, planned projects, markets, supply chain specifications, customers, employees, agents, investors, investment amounts, potential investors, liabilities, loans, debt instruments issued, branding, merchandising, data analysis including revenue projections, cost summaries, pricing formulae, technical know-how and any other intellectual property, and the like, irrespective of whether it is written, oral, in the form of audio tapes or video tapes, drawn, transcribed or plotted, through or on any human or machine readable document,

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka





disclosed by the either Party to the counter-Party.

9.2 Confidential Information includes the content, negotiations and communications relating to this MoA except as required under the law.

9.3 Each Party will maintain the confidentiality of all Confidential Information disclosed by either Party to the other Party. The confidentiality obligations shall extend to the information disclosed by third parties on behalf of the disclosing Party.

9.4 Subject to Clause 9.5, neither Party shall, at any time during the Term or thereafter, without the written consent of the other Party, divulge or permit its officers, employees, agents, advisers or contractors to divulge to any person any Confidential Information disclosed to it.

9.5 The obligations of confidentiality set forth above shall not apply to any information:

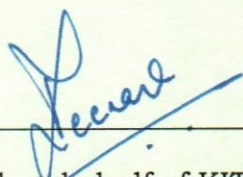
- a) Which is or becomes publicly available other than by breach of this MoA by any Party;
- b) Which is in or comes into the possession of the concerned Party prior to the date of execution hereof and which was not or is not obtained under any obligation of confidentiality, or
- c) Which is required by applicable law or appropriate regulatory authorities to be disclosed, provided, however, the Party to whom such request for disclosure is made shall make best efforts to give prior notice of at least 10 (ten) business days of such request to the other Party and the Party shall restrict the disclosure of Confidential Information to the minimum required extent.

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka






IN WITNESS WHEREOF the Parties hereto have signed, sealed and delivered this MoA on the 18<sup>th</sup> day of June, 2021 first above written in the presence of:



For and on behalf of KITS

Signed by Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Name: Smt. Meena Nagaraj C.N.  
Govt. of Karnataka

Designation: Managing Director  
KITS



रजिस्ट्रार / REGISTRAR  
भारतीय विज्ञान संस्थान / Indian Institute of Science  
बेंगलूर / Bangalore - 560 012

For and on behalf of IISc

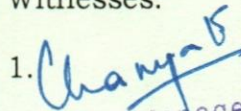
Signed by

Name: Capt. Sridhar Warriar (Retd.)

Designation: Registrar, IISc

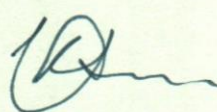
Witnesses:

1.



General Manager  
Information Technology (IT)  
Karnataka Innovation & Technology Society (KITS)  
Shanthinagar, Bengaluru-560027

2.



For and on behalf of I-Hub-ARTPark

Signed by

Name: Umakant Soni

Designation: Chief Executive Officer,  
I-Hub-ARTPark





**GOVERNMENT ORDER****PROCEEDINGS OF THE GOVERNMENT OF KARNATAKA**

**Sub:** Establishment of Artificial Intelligence and Robotics Technologies (ART) Park in association with Indian Institute of Science, Bengaluru – reg.

**Read:** Proposal of MD-KITS in letter No: KITS/IT/AIRP/1/2020 (Comp No: 299206)  
dt: 07/07/2020 and dt: 22/09/2020

**Preamble:-**

The following announcement was made in the budget of financial year 2020-21:

182. An "Artificial Intelligence Research Translation Park" will be established in association with Indian Institute of Science, Bengaluru in order to promote AI-Research, AI-Innovation, AI-Commercialization, Pilot Project Implementation along with development of 5G technology. For this purpose, corpus grant of Rs.60 crore will be provided during next three years.

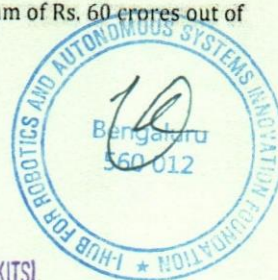
2] Managing Director, Karnataka Innovation and Technology Society (KITS) in letters cited above has submitted proposal for establishment of Artificial Intelligence (AI) and Robotics Technologies (ART) Park in association with Indian Institute of Science, Bengaluru. It is stated that AI, Robotics and Autonomous Systems are going to be the futuristic technologies which will drive the wheels of digital economy. IISc has significant research experience in the areas of Robotics, Autonomous Systems, AI, ML and Drones along with the necessary experience and expertise in creating Startups in the said futuristic technologies. IISc has been awarded a seed grant from Department of Science and Technology (DST), Government of India, under the National Mission for Interdisciplinary Cyber Physical Systems, to start ART Park. Government of India has also committed to provide Rs. 150 crores for the ART Park over a period of 5 years.

3] The proposed ART Park will help in supporting technopreneurship programs to create new Startups and generate high quality jobs. ART Park will also help in advanced skills development in these next generation technologies and therefore, it would be prudent to support IISc in setting up the ART Park. The long term benefits of supporting the next generation technologies would be immense in the next 5 to 10 years.

4] IISc has incorporated Section-8 Company called as "I-Hub for Robotics and Autonomous Systems Innovation Foundation", on 16<sup>th</sup> September, 2020 for establishing ART Park. IISc has requested Government of Karnataka for a sum of Rs. 60 crores out of



Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka







## **PROCEEDINGS OF THE GOVERNMENT OF KARNATAKA**

**Sub:** Establishment of Artificial Intelligence and Robotics Technologies (ART) Park  
in association with Indian Institute of Science, Bengaluru – reg.

**Read:** Proposal of MD-KITS in letter No: KITS/IT/AIRP/1/2020 (Comp No: 299206)  
dt: 07/07/2020 and dt: 22/09/2020

### **Preamble:-**

The following announcement was made in the budget of financial year 2020-21:

192. An "Artificial Intelligence Research Translation Park" will be established in association with Indian Institute of Science, Bengaluru in order to promote AI-Research, AI-Innovation, AI-Commercialization, Pilot Project implementation along with development of 5G technology. For this purpose, corpus grant of Rs.60 crore will be provided during next three years.

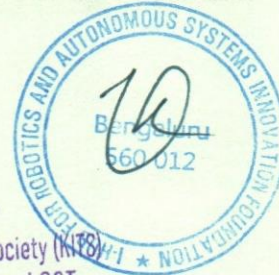
2] Managing Director, Karnataka Innovation and Technology Society (KITS) in letters cited above has submitted proposal for establishment of Artificial Intelligence (AI) and Robotics Technologies (ART) Park in association with Indian Institute of Science, Bengaluru. It is stated that AI, Robotics and Autonomous Systems are going to be the futuristic technologies which will drive the wheels of digital economy. IISc has significant research experience in the areas of Robotics, Autonomous Systems, AI, ML and Drones along with the necessary experience and expertise in creating Startups in the said futuristic technologies. IISc has been awarded a seed grant from Department of Science and Technology (DST), Government of India, under the National Mission for Interdisciplinary Cyber Physical Systems, to start ART Park. Government of India has also committed to provide Rs. 150 crores for the ART Park over a period of 5 years.

3] The proposed ART Park will help in supporting technopreneurship programs to create new Startups and generate high quality jobs. ART Park will also help in advanced skills development in these next generation technologies and therefore, it would be prudent to support IISc in setting up the ART Park. The long term benefits of supporting the next generation technologies would be immense in the next 5 to 10 years.

4] IISc has incorporated Section-8 Company called as "I-Hub for Robotics and Autonomous Systems Innovation Foundation", on 16<sup>th</sup> September, 2020 for establishing ART Park. IISc has requested Government of Karnataka for a sum of Rs. 60 crores out of



*Seeral*  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka





which Rs. 16 crores will be towards Capex and Rs. 44 crores towards Opex. With the funding support of Government of Karnataka and Government of India, ART Park will be set up with physical and virtual infrastructure in IISc campus, Bengaluru and IISc Campus in Challakere. The Section 8 Company namely "I-Hub for Robotics and Autonomous Systems Innovation Foundation" will enter into MoA for setting up the ART Park. MoA will be executed by KITS (on behalf of Government of Karnataka), IISc-Bengaluru and Department of Science and Technology, Government of India, with "I-Hub for Robotics and Autonomous Systems Innovation Foundation". ART Park will be governed by a Governing Board chaired by Director-IISc. A representative of Government of Karnataka (KITS) and a representative of DST, Government of India, will be among the members of the Governing Board. The facilities created in the ART Park in IISc campuses in Bengaluru and Challakere will be made available to the eco-system partners such as academia, MSMEs, Startups and established industries.

5] In view of the immense benefits of developing and promoting futuristic technologies, Government of Karnataka agrees to fund the ART Park. Hence the order.

**Government Order No: ITBT 44 ADM 2020,**

**Bengaluru, dated: 18<sup>th</sup> November, 2020**

In the circumstances explained in the preamble, Government is pleased to accord approval for providing financial support of Rs. 60 crores over a period of 5 years to the: "I-Hub for Robotics and Autonomous Systems Innovation Foundation", a Section 8 Company (not-for-profit) set up by IISc, for establishing the Artificial Intelligence and Robotics Technologies (ART) Park.

2] The State Government grant of Rs. 60 crores would be spread over a period of 5 years: Rs. 10 crores in the first year, followed by Rs. 12.5 crores in the next four years, beginning from FY 2021-22.

3] Karnataka Innovation and Technology Society (KITS) shall enter into Memorandum of Agreement (MoA) on behalf of the Government of Karnataka with "I-Hub for Robotics and Autonomous Systems Innovation Foundation". IISc and Department of Science and Technology, Government of India, for setting up the Artificial Intelligence and Robotics Technologies (ART) Park.

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka





4] This order is issued with the concurrence of Planning Department, vide No: PDS/32/PFR/2020, dt: 17/10/2020. This order also has the concurrence of Finance Department vide No: FD/168/Exp-2/2020 dt: 3/11/2020. Approval of Cabinet has been obtained for this project vide Sub No: 543/2020 in the meeting held on 12<sup>th</sup> November, 2020.

By order and in the name of  
Governor of Karnataka

*G. Annapurna*  
(G. Annapurna)

Deputy Secretary to Government  
Electronics, Information Technology,  
Biotechnology and Science and Technology.

To,

- 1) The Accountant General (A&E), Karnataka, Bengaluru.
- 2) The Secretary, Department of Science and Technology, Government of India.
- 3) The Director, Indian Institute of Science, Bengaluru.
- 4) Additional Chief Secretary, Finance Department, Government of Karnataka, Bengaluru.
- 5) Additional Chief Secretary, Planning Department, Government of Karnataka, Bengaluru.
- 6) The Director, Electronics, IT&Bt Government of Karnataka, Shanthinagar, Bengaluru.
- 7) The Managing Director, KITS, Shantinagar, Bengaluru.
- 8) The P.S. to Hon'ble Deputy Chief Minister, Department of Electronics, IT, Bt and S&T, Government of Karnataka, Bengaluru.
- 9) The P.S. to Chief Secretary, Government of Karnataka Bengaluru.
- 10) Cabinet Section (vide Sub No: 543/2020)
- 11) SGF/Extra Copies.

*Secured*  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka



\*\*\*\*





## ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ನಡವಳಿಗಳು

**ವಿಷಯ:** ಭಾರತೀಯ ವಿಜ್ಞಾನ ಸಂಸ್ಥೆ, ಬೆಂಗಳೂರು, ಇವರ ಸಹಯೋಗದೊಂದಿಗೆ Artificial Intelligence and Robotics Technologies (ART) Park ಸ್ಥಾಪನೆ ಬಗ್ಗೆ.

**ಓದಲಾಗಿದೆ:** ವ್ಯವಸ್ಥಾಪಕ ನಿರ್ದೇಶಕರು, ಕಿಟ್ಸ್, ರವರ ಪತ್ರ ಸಂಖ್ಯೆ: KITS/IT/AIRP/1/2020 (Camp No. 299206), ದಿನಾಂಕ: 07/07/2020 ಮತ್ತು ದಿ: 22/09/2020 ದಲ್ಲಿನ ಪ್ರಸ್ತಾವನೆ.

**ಪ್ರಸ್ತಾವನೆ:**

2020-21ನೇ ಸಾಲಿನ ಆಯವ್ಯಯ ಭಾಷಣದಲ್ಲಿ ಈ ಕೆಳಕಂಡ ಘೋಷಣೆಯನ್ನು ಮಾಡಲಾಗಿದೆ:

192. "AI-ಸಂಶೋಧನೆ AI-ನಾವೀನ್ಯತೆ, AI-ವಾಣಿಜ್ಯೀಕರಣ ಮತ್ತು ಪ್ರಾಯೋಗಿಕ ಅನುಷ್ಠಾನಗಳನ್ನು ಅಭ್ಯರ್ಥಿಸುವ ದೃಷ್ಟಿಯಿಂದ ಹಾಗೂ 5-ಜಿ ತಂತ್ರಜ್ಞಾನವನ್ನು ಅಭಿವೃದ್ಧಿಪಡಿಸಲು "Artificial Intelligence Research Translation Park" ಅನ್ನು ಬೆಂಗಳೂರಿನ ಭಾರತೀಯ ವಿಜ್ಞಾನ ಸಂಸ್ಥೆ (IISc) ಯ ಸಹಯೋಗದೊಂದಿಗೆ ಸ್ಥಾಪಿಸಲಾಗುವುದು. ಇದಕ್ಕಾಗಿ ಮುಂದಿನ ಮೂರು ವರ್ಷಗಳಲ್ಲಿ 60 ಕೋಟಿ ರೂ.ಗಳ ಇಡೀಗುರುತು ಶೇಖರಿಸುವುದು ಒದಗಿಸಲಾಗುವುದು."

2) ವ್ಯವಸ್ಥಾಪಕ ನಿರ್ದೇಶಕರು, ಕರ್ನಾಟಕ ನಾವೀನ್ಯತೆ ಮತ್ತು ತಂತ್ರಜ್ಞಾನ ಸೊಸೈಟಿ (ಕಿಟ್ಸ್), ರವರು ಮೇಲೆ ಓದಲಾದ ಪತ್ರಗಳಲ್ಲಿ, ಬೆಂಗಳೂರಿನ ಭಾರತೀಯ ವಿಜ್ಞಾನ ಸಂಸ್ಥೆ (IISc) ಯ ಸಹಯೋಗದೊಂದಿಗೆ Artificial Intelligence (AI) and Robotics Technologies (ART) Park ಸ್ಥಾಪನೆಗಾಗಿ ಪ್ರಸ್ತಾವನೆಯನ್ನು ಸಲ್ಲಿಸಿರುತ್ತಾರೆ. AI, Robotics ಮತ್ತು Autonomous Systems ವಲಯಗಳು ಭವಿಷ್ಯದಲ್ಲಿ ಪ್ರಮುಖವಾದ ತಂತ್ರಜ್ಞಾನಗಳಾಗಲಿದ್ದು, ಡಿಜಿಟಲ್ ಆರ್ಥಿಕತೆಯನ್ನು ಮುನ್ನಡೆಸಲು ಕಾರಣವಾಗಿವೆ. Robotics, Autonomous Systems, AI, ML ಮತ್ತು Drones ವಲಯಗಳಲ್ಲಿ IISc ಗೆ ಗಣನೀಯವಾದ ಸಂಶೋಧನಾ ಅನುಭವವಿದ್ದು, ಸದರಿ ಭವಿಷ್ಯದ ತಂತ್ರಜ್ಞಾನಗಳಲ್ಲಿ ನವೋದ್ಯಮಗಳನ್ನು ಸೃಷ್ಟಿಸಲು ಅಗತ್ಯವಾದ ಅನುಭವ ಮತ್ತು ಪರಿಣತಿಯಿದೆ. ART Park ನ್ನು ಪ್ರಾರಂಭಿಸಲು ಭಾರತ ಸರ್ಕಾರದ ವಿಜ್ಞಾನ ಮತ್ತು ತಂತ್ರಜ್ಞಾನ ಇಲಾಖೆಯಿಂದ IISc ಸಂಸ್ಥೆಗೆ National Mission for Interdisciplinary Cyber Physical Systems ಅಭಿಯಾನದಡಿಯಲ್ಲಿ ಮೂಲಧನವನ್ನು ಫರಸ್ಟರಿಸಲಾಗಿದೆ. ART Park ಗಾಗಿ ಭಾರತ ಸರ್ಕಾರದಿಂದ 5 ವರ್ಷಗಳ ಅವಧಿಯಲ್ಲಿ ರೂ. 150 ಕೋಟಿಗಳನ್ನು ಒದಗಿಸಲು ಬಡ್ತಿ ವ್ಯಕ್ತಪಡಿಸಿದೆ.

3) ಪ್ರಸ್ತಾಪಿತ ART Park ನಿಂದಾಗಿ, ಹೊಸ ನವೋದ್ಯಮಗಳನ್ನು ಸೃಷ್ಟಿಸುವ ನಿಟ್ಟಿನಲ್ಲಿ technopreneurship programs ನ್ನು ಬೆಂಬಲಿಸಲು ಹಾಗೂ ಉನ್ನತ ಮಟ್ಟದ ಉದ್ಯೋಗಗಳನ್ನು ಸೃಷ್ಟಿಸುವಲ್ಲಿ ಸಂಯೋಜನಾತ್ಮಕವಾಗಿರುತ್ತದೆ. ಇಂತಹ ಮುಂದಿನ ತಲೆಮಾರಿನ ತಂತ್ರಜ್ಞಾನಗಳಲ್ಲಿ ಉನ್ನತ ಕೌಶಲ್ಯಾಭಿವೃದ್ಧಿಗೆ ಸಹ ಸಹಾಯಕವಾಗಿರುವುದರಿಂದ, ಸದರಿ ART Park ನ್ನು ಸ್ಥಾಪಿಸಲು IISc ಯನ್ನು ಬೆಂಬಲಿಸುವುದು ವಿವೇಕದ ವಿಷಯವಾಗಿದೆ. ಮುಂದಿನ ತಲೆಮಾರಿನ ತಂತ್ರಜ್ಞಾನಗಳನ್ನು ಬೆಂಬಲಿಸುವ ದೀರ್ಘಕಾಲದ ಪ್ರಯತ್ನಗಳನ್ನು ಮುಂದಿನ 5 ರಿಂದ 10 ವರ್ಷಗಳಲ್ಲಿ ಆಗಾಧವಾದುದಾಗಿರುತ್ತದೆ.

4) ART Park ಸ್ಥಾಪಿಸುವ ಸಲುವಾಗಿ IISc, ಯಿಂದ ದಿನಾಂಕ 16ನೇ ಸೆಪ್ಟೆಂಬರ್, 2020 ರಂದು "I-Hub for Robotics and Autonomous Systems Innovation Foundation" ಎಂಬ ಸೆಕ್ಷನ್ 8 ಕಂಪನಿಯನ್ನು ಸ್ಥಾಪಿಸಲಾಗಿದೆ. IISc ಸಂಸ್ಥೆಯು ಕರ್ನಾಟಕ ಸರ್ಕಾರವನ್ನು ರೂ. 60 ಕೋಟಿಗಳ ಮೊತ್ತ ಒದಗಿಸುವಂತೆ ಕೋರಿದ್ದು, ಈ ಮೊತ್ತದಲ್ಲಿ ರೂ. 16 ಕೋಟಿಗಳು ಬಂಡವಾಳ ವೆಚ್ಚದಡಿಯಲ್ಲಿ ಹಾಗೂ ರೂ. 44 ಕೋಟಿಗಳು ಜಾಲನಾ ವೆಚ್ಚದಡಿಯಲ್ಲಿರುತ್ತದೆ. ಕರ್ನಾಟಕ ಸರ್ಕಾರ ಮತ್ತು ಭಾರತ ಸರ್ಕಾರದ ಹಣಕಾಸು ಬೆಂಬಲದೊಂದಿಗೆ, ಬೆಂಗಳೂರಿನ IISc ಕ್ಯಾಂಪಸ್ ಹಾಗೂ ಚಳ್ಳಕೆರೆಯ IISc ಕ್ಯಾಂಪಸ್ ನಲ್ಲಿ ಭೌತಿಕ ಮತ್ತು ಪರೋಕ್ಷ ಮೂಲಸೌಕರ್ಯಗಳೊಂದಿಗೆ ART Park ನ್ನು ಸ್ಥಾಪಿಸಲಾಗುತ್ತದೆ. 'I-Hub for Robotics and Autonomous Systems Innovation Foundation' ಹೆಸರಿನ ಸೆಕ್ಷನ್ 8 ಕಂಪನಿಯು ART Park ಸ್ಥಾಪಿಸಲು MoA ಗೆ ಒಳಪಡಲಿದೆ. 'I-Hub for Robotics and Autonomous Systems Innovation Foundation' ನೊಂದಿಗೆ ಕಿಟ್ಸ್ ಸಂಸ್ಥೆ (ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಪರವಾಗಿ), ಬೆಂಗಳೂರಿನ IISc ಸಂಸ್ಥೆ ಮತ್ತು ಭಾರತ ಸರ್ಕಾರದ ವಿಜ್ಞಾನ ಮತ್ತು ತಂತ್ರಜ್ಞಾನ ಇಲಾಖೆಯಿಂದ MoA ನ್ನು ಕಾರ್ಯಗತಗೊಳಿಸಲಾಗುತ್ತದೆ. ನಿರ್ದೇಶಕರು IISc ರವರು ಅಧ್ಯಕ್ಷರಾಗಿರುವ ಆಡಳಿತ ಮಂಡಳಿಯಿಂದ ART Park ನ ಆಡಳಿತ ನಡೆಸಲಾಗುತ್ತದೆ. ಕರ್ನಾಟಕ ಸರ್ಕಾರದ (ಕಿಟ್ಸ್) ಪ್ರತಿನಿಧಿ ಹಾಗೂ ಭಾರತ ಸರ್ಕಾರದ ವಿಜ್ಞಾನ ಮತ್ತು ತಂತ್ರಜ್ಞಾನ ಇಲಾಖೆಯ ಪ್ರತಿನಿಧಿ ಸದರಿ ಆಡಳಿತ ಮಂಡಳಿಯ ಸದಸ್ಯತ್ವದಲ್ಲಿರುತ್ತಾರೆ. ಬೆಂಗಳೂರು ಮತ್ತು ಚಳ್ಳಕೆರೆಯಲ್ಲಿರುವ IISc ಕ್ಯಾಂಪಸ್ ಗಳಲ್ಲಿನ ART Park ನಲ್ಲಿ ಸೃಷ್ಟಿಸಲಾಗುವ ಸೌಲಭ್ಯಗಳನ್ನು ಶೈಕ್ಷಣಿಕ ವಲಯ, ಸಣ್ಣ ಹಾಗೂ ಮಧ್ಯಮ ಕೈಗಾರಿಕೆಗಳು, ನವೋದ್ಯಮಗಳು ಮತ್ತು ನೆಲೆಯೂರಿರುವ ಕೈಗಾರಿಕೆಗಳಂತಹ ಪೂರಕ ಪರಿಸರ ವ್ಯವಸ್ಥೆಯ ಪಾಲುದಾರರಿಗೆ ಲಭ್ಯಪಡಿಸಲಾಗುತ್ತದೆ.

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka





5] ಭವಿಷ್ಯಮುಖೀ ತಂತ್ರಜ್ಞಾನಗಳನ್ನು ಅಭಿವೃದ್ಧಿಪಡಿಸಿ ಪ್ರೋತ್ಸಾಹಿಸುವ ಅಗಾಧ ಪ್ರಯೋಜನಗಳನ್ನು ಮನಗಂಡು, ಕರ್ನಾಟಕ ಸರ್ಕಾರವು ಸದರಿ ART Park ಗೆ ಹಣಕಾಸು ಒದಗಿಸಲು ಒಪ್ಪುತ್ತದೆ. ಆದುದರಿಂದ ಈ ಕೆಳಕಂಡ ಆದೇಶ.

**ಸರ್ಕಾರಿ ಆದೇಶ ಸಂಖ್ಯೆ: ಐಟಿಬಿಟಿ 44 ಎಡಿಎಂ 2020,  
ಬೆಂಗಳೂರು, ದಿನಾಂಕ: 18ನೇ ನವೆಂಬರ್, 2020**

ಪ್ರಸ್ತಾವನೆಯಲ್ಲಿ ವಿವರಿಸಲಾಗಿರುವ ಅಂಶಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ, IISc. ಯಿಂದ ಸ್ಥಾಪಿಸಲಾಗಿರುವ ಸಕ್ಸನ್ 8 ಕಂಪನಿಯಾದ (ಲಾಭಕ್ಕಾಗಿಲ್ಲದ) "I-Hub for Robotics and Autonomous Systems Innovation Foundation" ಗೆ Artificial Intelligence and Robotics Technologies (ART) Park ಸ್ಥಾಪಿಸುವುದಕ್ಕಾಗಿ ರಾಜ್ಯ ಸರ್ಕಾರದಿಂದ 5 ವರ್ಷಗಳ ಅವಧಿಯಲ್ಲಿ, ರೂ. 60 ಕೋಟಿಗಳ ಹಣಕಾಸು ಬೆಂಬಲ ಒದಗಿಸಲು ಅನುಮೋದನೆ ನೀಡಿದೆ.

2] ರಾಜ್ಯ ಸರ್ಕಾರದ ಅನುದಾನವಾದ ರೂ. 60 ಕೋಟಿಗಳನ್ನು 5 ವರ್ಷಗಳ ಅವಧಿಯಲ್ಲಿ ಹಂಚಲಾಗುತ್ತದೆ: 2021-22 ಆರ್ಥಿಕ ವರ್ಷದಿಂದ ಪ್ರಾರಂಭಿಸಿ ಮೊದಲ ವರ್ಷದಲ್ಲಿ ರೂ. 10 ಕೋಟಿ, ತದನಂತರ, ಮುಂದಿನ ನಾಲ್ಕು ವರ್ಷಗಳಲ್ಲಿ ರೂ. 12.5 ಕೋಟಿಗಳಂತೆ ಕಲ್ಪಿಸಲಾಗುತ್ತದೆ.

3] Artificial Intelligence and Robotics Technologies (ART) Park ಸ್ಥಾಪಿಸುವ ಸಲುವಾಗಿ ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಪರವಾಗಿ ಕರ್ನಾಟಕ ನಾವೀನ್ಯತೆ ಮತ್ತು ತಂತ್ರಜ್ಞಾನ ಸೊಸೈಟಿ (ಕಿಟೈ) ನಿಂದ "I-Hub for Robotics and Autonomous Systems Innovation Foundation", IISc. ಮತ್ತು ಭಾರತ ಸರ್ಕಾರದ ವಿಜ್ಞಾನ ಮತ್ತು ತಂತ್ರಜ್ಞಾನ ಇಲಾಖೆಯೊಂದಿಗೆ Memorandum of Agreement (MOA) ಗೆ ಒಳಪಡತಕ್ಕದ್ದು.

4] ಯೋಜನಾ ಇಲಾಖೆಯ ಸಂ: PDS/32/PFR/2020, ದಿ: 17/10/2020 ರನ್ವಯ ಸಹಮತಿಯೊಂದಿಗೆ ಈ ಆದೇಶವನ್ನು ಹೊರಡಿಸಲಾಗಿದೆ. ಆರ್ಥಿಕ ಇಲಾಖೆಯ ಸಂ: FD/168/Exp-2/2020, ದಿ: 03/11/2020 ರನ್ವಯ ಸಹಮತಿಯೊಂದಿಗೆ ಸಹ ಈ ಆದೇಶವನ್ನು ಹೊರಡಿಸಲಾಗಿದೆ. ಸಚಿವ ಸಂಪುಟದ ದಿನಾಂಕ 12ನೇ ನವೆಂಬರ್, 2020 ರಂದು ನಡೆದ ಸಭೆಯಲ್ಲಿ ವಿಷಯ ಸಂ: 543/2020 ರನ್ವಯ ಈ ಯೋಜನೆಗೆ ಅನುಮೋದನೆಯನ್ನು ಪಡೆಯಲಾಗಿದೆ.

ಮಾನ್ಯ ರಾಜ್ಯಪಾಲರ ಆದೇಶಾನುಸಾರ  
ಹಾಗೂ ಅವರ ಹೆಸರಿನಲ್ಲಿ.

*G. Annappaiah*  
(ಜಿ. ಅನ್ನಪೂರ್ಣ)

ಸರ್ಕಾರದ ಉಪಕಾರ್ಯದರ್ಶಿ,  
ವಿದ್ಯುನ್ಮಾನ, ಮಾಹಿತಿ ತಂತ್ರಜ್ಞಾನ, ಜೈವಿಕ ತಂತ್ರಜ್ಞಾನ  
ಹಾಗೂ ವಿಜ್ಞಾನ ಮತ್ತು ತಂತ್ರಜ್ಞಾನ ಇಲಾಖೆ.

ಗೆ.

- 1) ಮಹಾಲೇಖಪಾಲರು (ಲೆ & ಹ) ಕರ್ನಾಟಕ, ಬೆಂಗಳೂರು.
- 2) ಕಾರ್ಯದರ್ಶಿ, ವಿಜ್ಞಾನ ಮತ್ತು ತಂತ್ರಜ್ಞಾನ ಇಲಾಖೆ, ಭಾರತ ಸರ್ಕಾರ.
- 3) ನಿರ್ದೇಶಕರು, ಭಾರತೀಯ ವಿಜ್ಞಾನ ಸಂಸ್ಥೆ (IISc), ಬೆಂಗಳೂರು.
- 4) ಸರ್ಕಾರದ ಅವರ ಮುಖ್ಯ ಕಾರ್ಯದರ್ಶಿ, ಆರ್ಥಿಕ ಇಲಾಖೆ, ಕರ್ನಾಟಕ ಸರ್ಕಾರ, ಬೆಂಗಳೂರು.
- 5) ಸರ್ಕಾರದ ಅವರ ಮುಖ್ಯ ಕಾರ್ಯದರ್ಶಿ, ಯೋಜನಾ ಇಲಾಖೆ, ಕರ್ನಾಟಕ ಸರ್ಕಾರ, ಬೆಂಗಳೂರು.
- 6) ನಿರ್ದೇಶಕರು, ವಿದ್ಯುನ್ಮಾನ, ಮಾಹಿತಿ ತಂತ್ರಜ್ಞಾನ ಮತ್ತು ಜೈವಿಕ ತಂತ್ರಜ್ಞಾನ ನಿರ್ದೇಶನಾಲಯ, ಶಾಂತಿನಗರ, ಬೆಂಗಳೂರು.
- 7) ವ್ಯವಸ್ಥಾಪಕ ನಿರ್ದೇಶಕರು, ಕಿಟೈ, ಶಾಂತಿನಗರ, ಬೆಂಗಳೂರು.
- 8) ಮಾನ್ಯ ಉಪಮುಖ್ಯಮಂತ್ರಿಗಳ ಅವು ಕಾರ್ಯದರ್ಶಿ, ವಿದ್ಯುನ್ಮಾನ, ಮಾಹಿತಿ ತಂತ್ರಜ್ಞಾನ, ಜೈವಿಕ ತಂತ್ರಜ್ಞಾನ ಹಾಗೂ ವಿಜ್ಞಾನ ಮತ್ತು ತಂತ್ರಜ್ಞಾನ ಇಲಾಖೆ, ಕರ್ನಾಟಕ ಸರ್ಕಾರ.
- 9) ಸರ್ಕಾರದ ಮುಖ್ಯ ಕಾರ್ಯದರ್ಶಿಯವರ ಅವು ಕಾರ್ಯದರ್ಶಿ, ಕರ್ನಾಟಕ ಸರ್ಕಾರ.
- 10) ಸಚಿವ ಸಂಪುಟ ಶಾಖೆ (ವಿಷಯ ಸಂ: 543/2020 ರಲ್ಲಿ).
- 11) ಶಾಖಾ ರಕ್ಷಾ ಕಡತ / ಬಿಡಿ ಪ್ರತಿಗಳು.

*[Signature]*  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka





**PROPOSAL SUBMITTED BY IISc.**

1473830/2020/KITS-IT

2/28



Robert Bosch Centre for Cyber-Physical Systems  
Division of Interdisciplinary Research  
INDIAN INSTITUTE OF SCIENCE, Bangalore 560012



To.

20 June 2020

Smt. Champa.F.  
General Manager - IT  
Karnataka Innovation & Technology Society (KITS)  
K-tech  
Department of IT, BT and S & T  
Government of Karnataka  
BMTC Building, 4th Floor  
(TTMC B Block - above bus stand)  
Shanthinagar, Bengaluru - 560 027, Karnataka, India

Dear Ms. Champa,

I am attaching our proposal for an AI & Robotics Technologies Park (ARTPark). We thank you and your team for helping us to finalize this proposal.

We look forward to a favourable response from the Government of Karnataka to help support this activity.

Thanks,

Rishadwaj Amnkar  
Professor & Chair  
Robert Bosch Center for  
Cyber Physical Systems  
IISc Bangalore

24/6/20  
24/6/20  
24/6/20

Managing Director

Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka







Robert Bosch Centre for Cyber-Physical Systems  
Division of Interdisciplinary Research  
INDIAN INSTITUTE OF SCIENCE, Bangalore 560012



## IISc-GoK Program for AI and Robotics

(A proposal submitted to the Ministry of IT, BT and S&T, Government of Karnataka)

PI: Prof. Bharadwaj Amrutur, *Bharadwaj*

Co-PIs: Prof. Debashish Ghose, Prof. Suresh Sundaram, Prof. Chiranjib Bhattacharyya, Prof. Shalabh Bhatnagar

Indian Institute of Science, Bangalore 560012, +91 9886054723; [amrutur@iisc.ac.in](mailto:amrutur@iisc.ac.in)  
Industry Partners: Umakant Soni, Subhashis Banerjee, AIOT Foundry Pvt. Ltd

### Goals, Objectives, Methodology:

The budget of Govt of Karnataka (GoK) presented on 5th March 2020, has indicated in clause 182: "An 'Artificial Intelligence Research Translation Park' will be established in association with Indian Institute of Science, Bangalore in order to promote AI-Research, AI-Innovation, AI-Commercialization. Pilot Project implementation along with development of 5G technology. For this purpose, a corpus grant of Rs.60 crore will be provided during next three years."

In support of this vision by GoK, the goal of this proposal is to develop the AI and Robotics ecosystem in the state by acting as a nodal agency that will co-create a 'Technology Innovation Hub' for Artificial Intelligence, Robotics and Autonomous Systems, which will be located at IISc Bangalore (with additional facilities in IISc Challakere). It is seed funded by the Department of Science and Technology (DST) of Govt. of India and will be collaborating with various industries. The hub will be referred to as ARTPark (AI and Robotics Technologies Park) in the rest of the document.

The objectives of ARTPark will be to

- Create, maintain and share world class facilities in robotics & autonomous vehicles incorporating next-generation communication infrastructure (like 5G, WiFi6 etc.) and data-compute testbeds to spur cutting edge AI/ML based innovations in these domains. These shared facilities will be made available to all ecosystem partners in industry and academia in Karnataka and India.
- Support innovative technology development in these domains as collaborative projects between IISc, partnering academic institutions and industries (including MSME).
- Support translation of these innovative technologies via Technopreneurship programs to create new startups and consequently high-quality jobs in Karnataka, both in manufacturing as well as software/services domains.
- Support advanced skills development and training of students, in these next-generation technologies. The students (from a wide variety of colleges from around the state), will have an opportunity to work in these advanced facilities to get hands-on training on cutting edge technologies. This will make them ready for participating in the \$15.7tn AI wave (by 2035). This will in turn boost primary and secondary employment in the state.

Methodology adopted is to establish a section-8, not-for-profit company, wholly owned by IISc, which we are calling the ARTPark. ARTPark will be set up in collaboration with AIOT Foundry, a private company. DST (Govt. of India) has already released a grant of INR 7.25Cr to set this up and will likely provide an additional 100Cr+ over the next five years. ARTPark will help create and maintain next generation AI, Robotics and advanced communication facilities (5G) at IISc, and curate technology innovation projects at IISc and help nurture the Technopreneurship activities. Physical and virtual infrastructure will be created in IISc campus (both in Bangalore as well as in Challakere). ARTPark will also develop skills training modules and run Technopreneurship programs to help create startups in the emerging area of AI and Robotics systems.

Collaborators:

*Secured*  
Managing Director

Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka







**Robert Bosch Centre for Cyber-Physical Systems**  
**Division of Interdisciplinary Research**  
**INDIAN INSTITUTE OF SCIENCE, Bangalore 560012**



ARTPark will work closely with and leverage the expertise and networks of the three major stake holding bodies: government, industry, and academia. Examples of each are given below:

- Government bodies: ITBT Department, Skills Development Entrepreneurship & Livelihood Department, Transport Department, Agriculture Department, KSCST, BBMP, BSCL, and any other state departments or units as advised by Govt. Department of Science & Technology, Govt. Ministry of Defence (GoI), Ministry of Civil Aviation and other relevant central ministries as advised by Govt. and DST.
- Industries: MSME (Transvaahan, Wimera etc.), Indian companies (Wipro, TCS, LTTS etc), Startups (Rightbot etc.), MNCs (Bosch, Siemens, Nokia, Cisco, Garat etc.),
- Academia: Engineering colleges in Karnataka like PESIT, MSRIT, RVCE, NITK, IIT Dharwad etc.

**Beneficiaries:**

These are the primary beneficiaries:

- Members of MSMEs who are looking to infuse more AI and automation technologies into their product portfolios via licensing of technologies, support for small volume manufacturing and participating in pilot scale demonstrations; Examples include: Transvaahan (Bangalore), Wimera (Bangalore), etc.
- Final year undergraduate, Masters and PhD students in engineering courses across disciplines with an interest in robotics and autonomous systems (especially mechanical, aerospace, automotive, electronics, electrical, computer science, IT). Colleges in Bangalore and Karnataka will be the main beneficiaries (IISc, PESIT, RVCE, MSRIT, NIT Surathkal, BVB College Hubli, IIT Dharwad etc.);
- Large corporates in Robotics and Automotive sectors; for developing, testing and showcasing their technologies in ARTPark's testbeds, perform collaborative research and development; Companies like Wipro (HSR Layout), Bosch (Koramangala), Siemens (Electronics City), LAT Tech Services (Whitefield), Toyota Kirloskar (Bidadi), TCS Innovation Labs (Whitefield), Cisco (Bellandur), Nokia (Hebbal) are some example companies that will benefit.
- Startups - who will get access to the facilities and opportunity to license technologies as well as collaborate (e.g. rightbot.in etc.)
- BBMP and BSCL will benefit from smart city technologies that will get developed as well as Bangalore could become the first Indian/World city to setup Drone skyways in the City
- Challakere Science City area will get a boost due to the facility creation of the drone/autonomous test bed in the IISc campus there.
- Karnataka will get a boost due to emergence of new startups and creation of new economic activities.

**Tasks:**

- Create Robotics, Autonomous Vehicles and Compute-Data facilities**
  - Robotics laboratory - the Makery: This space will house smaller robots, associated instrumentation as well as tools and gadgets to make our own prototype robots and systems. It will be housed in the Robert Bosch Center for Cyber Physical Systems
  - Drone testbed - the Droney: This testbed will consist of a wind-shaping facility and an indoor drone testing space. This will be housed in IISc's airfield,
  - Mini Test track Facility: This will consist of a small outdoor test track to test autonomous (and semi-autonomous) vehicles (also enabling mimicking of indoor settings), with a next gen wireless infrastructure. This will be housed in IISc's airfield, and
  - Large test track and drone flight corridors: This facility will allow outdoor testing of unmanned air vehicles (microdrone size) as well as a multi-terrain ground test track to test autonomous and connected vehicles in outdoor settings. This will be setup in IISc's Challakere campus.

*[Signature]*  
 Managing Director

Karnataka Innovation and Technology Society (KITS)  
 Department of Electronics, IT, Bt and S&T  
 Govt. of Karnataka







Robert Bosch Centre for Cyber-Physical Systems  
Division of Interdisciplinary Research  
INDIAN INSTITUTE OF SCIENCE, Bangalore 560012



- e. Database facility for secure compute and privacy aware data sharing of data sets for use in development of AI/ML technologies.
2. Develop training content and delivery:
  - a. Develop training content for skills enhancement and executive training in robotics and autonomous systems.
  - b. Offer short, 1-2 credit, Immersive courses with hands-on laboratory training.
3. Support Technology Innovation Projects
  - a. Financially support, monitor and review technology innovation projects in Robotics and Autonomous systems at IISc (encouraging collaborations from other academia and industry) for application areas of agriculture, healthcare, mining, retail, autonomous delivery, smart cities, industrial automation.
4. Develop and implement Technopreneurship Program
  - a. Develop a hands-on Technopreneurship program which are synergistic with the funded technology innovation projects. Aim will be to have technopreneurs work on the technology aspects as well as undergo training related to startup business, leading to a startup proposal for possible funding and hosting in a technology business incubator

Milestones and deliverables (3 years): See Tables below.  
Deliverables:

No	Item ID	Numbers (3-year period)
1	Facility creation for robotics, autonomous vehicles	Indoor and Outdoor in IISc main campus and Challakere campus
2	Number of Student Stipends for Masters/PhD	150
3	Number of students undergoing Skills Training	300
4	Number of Technology products and IP	10
5	Number of startups created	10

Milestones & Timelines

No	Description	Year
1	Facility creation in IISc main campus, Technology Innovation projects - batch 1 Technopreneurship program created and first batch graduated to startup incubation Basic skills training course developed, and first batch graduated Collaboration with MSME/Industry - batch 1	1
2	Facility creation in IISc Challakere campus Technology Innovation projects - batch 2 Technopreneurship program created and second batch graduated to startup incubation Intermediate skills training course developed, and second batch graduated Collaboration with MSME/Industry - batch 2	2
3	Facility upgradation Technology Innovation projects - batch 3 Technopreneurship program created and third batch graduated to startup	3

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka







Robert Bosch Centre for Cyber-Physical Systems  
Division of Interdisciplinary Research  
INDIAN INSTITUTE OF SCIENCE, Bangalore 560012



Incubation Advanced skills training course developed, and third batch graduated Collaboration with MSME/Industry - batch 3	
--	--

#### Project Implementation and Monitoring Mechanisms:

The project will be implemented and monitored by the following organisational structure:

- The project will be taken up by IISc's Technology Innovation Hub, a not-for-profit Section 8 company, which is wholly owned by IISc and will be responsible for providing IIC/SE.
- A Hub Governing Board will be formed chaired by Director, IISc, and consisting of members from academia, industry and govt. Bodies, as per DST's guidelines. The committee will meet once a year and will be the supreme decision-making body. We will request Additional Chief Secretary IT-BT, GoK to be a board member.
- A Project Monitoring Committee (PMC) will be formed with representatives from GoK, IISc and Program Director to review the work at the operational level. The committee will meet up to two times a year.
- A Project Advisory Committee (PAC) will be formed with invitees from all stakeholders to advise the PMC as and when necessary and called for by PMC.

#### Suitability of IISc:

IISc has significant prior experience in all three areas of importance in this project: research expertise in Robotics, Autonomous Systems, AI, ML, Drones; developing and disseminating knowledge; and creation of start-ups. IISc has also been awarded a grant from DST, under the National Mission for Interdisciplinary Cyber Physical Systems, to start ARTPark.

#### Budget & Funding Pattern (3 years):

INR 60Cr over a three-year period (20Cr per year)

Summary Budget

GoK Grant Budget	INR Crores		
	Y1	Y2	Y3
CAPEX			
Facilities (Testbeds, Equipment)		8	8
OPEX			
HRD (Stipends, Fellowships, Training)	8.25	8.25	8.25
Operations (Facilities Maintenance, Technology Transition, Overheads)	3.75	3.75	11.75
Total	20	20	20

#### GoK & GoI (DST) Funding Pattern (INR Crores)

Entity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
GoK	20	20	20			60



*[Signature]*  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka







Robert Bosch Centre for Cyber-Physical Systems  
Division of Interdisciplinary Research  
INDIAN INSTITUTE OF SCIENCE, Bangalore 560012



GoI	30	30	30	30	90	150
-----	----	----	----	----	----	-----

## Detailed CAPEX and OPEX breakdown

CAPEX	Year 1			Estimated Cost (INRLakhs)
Item	Min. Qty	Description	Possible Vendors	
6DOF Collaborative Arm	2	Arm for collaborative robotics	DENSO, ABB, Kuka, UR	60
6DOF Industrial Arm	2	Normal Industrial robot arm	Systemantics, Yaskawa, Dobot	30
3DOF Mini Arm	4	Desk top model	Systemantics, Dobot	10
3D Printers	2	High end 3D printer	Ultimaker etc	30
VR/AR Kits, Haptic Gloves	N/A	Virtual/Augmented Reality Kits, Haptic Gloves, Exoskeletons	HTC, Oculus, Atheer, others	30
Humanoid Robot	1	Humanoid Robot with Facial Emotion Engine	Hanson Robotics	60
Small Humanoid Robots	2	Smaller humanoid robots	Neo	25
Small Mobile Bots	10	Small indoor ground vehicles	Turtle Bots etc	50
Minibots		Miniatunized mobile bot kits	TI etc	15
Sensors and Actuators (Lidars, mm-wave radars, Stereo cameras)	N/A	Sensors of various kinds to be mounted on vehicles, as well as embedded in infrastructure	Different Sources	200
MoCAP system	1	Outdoor localisation of robots and drones	Different Vendors (Qualisys etc.)	90
Communication Network	1	5G and WiFi6	Different Vendors	100
On-Prem Compute and Storage	N/A	GPU, CPU, NAS, Network Equipment, High Speed Leased Line, Power	Different vendors	100
Total				800
CAPEX	Year 2			

Managing Director

Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka







Robert Bosch Centre for Cyber-Physical Systems  
Division of Interdisciplinary Research  
INDIAN INSTITUTE OF SCIENCE, Bangalore 560012



Civil Work	N/A	Setup road test track and other supporting infrastructure	Different Vendors	100
Radar, tracking and signalling, Scada, AR/VR, HCI equipment		Track drones and vehicles Human computer interface	Different Vendors	100
Next Gen Wireless Equipment		5G and wifi6	Different Vendors	200
Maintenance Garage		State of the art equipment maintenance facility	Different Vendors	100
Air Vehicles		Micro, Medium and Large Sized Air Vehicles	Different Vendors	100
Ground Vehicles		Small, Medium and Large sized ground vehicles	Different Vendors	200
<b>Total</b>				<b>800</b>

OPEX	All Years					
HRD (Skills Development, Stipends etc.)						
Item	ARTP/Numbers (Yr)	Remuneration (Lakhs)/Yr	Unrestricted Research Grant (Lakhs)/Yr	Total (Lakhs)/Yr	Remark	Mode of selection
High End Skill Development (Associates)	40	10	0	400	Open to diploma holders	Advertisement and selection
Graduate Fellowships	50	3	0	150	Open to All Karnataka colleges	Advertisement and selection
Post-Graduation Fellowships	20	5	0	100	Open to All Karnataka colleges	Advertisement and selection
Doctoral Fellowships	10	8	2	100	Open to All Karnataka colleges	Advertisement and selection
Post Doctoral Fellowships	5	12	3	75	Open to All Karnataka colleges	Advertisement and selection
<b>Total</b>				<b>825</b>		

*[Signature]*  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka







Robert Bosch Centre for Cyber-Physical Systems  
Division of Interdisciplinary Research  
INDIAN INSTITUTE OF SCIENCE, Bangalore 560012



Operations	All Years
Item	Cost (Lakhs/yr)
Courses Development and Delivery	75
Academic Program Manpower	100
Academic Program Operations Cost	50
Facilities Management Manpower	100
Facilities Operations Cost	50
Total	375

Translation	Y3 Cost (Lakhs/yr)
Translation Grants for startups/Pre-startups	800

#### Sustainability Plan after 3 years:

The investment in creating facilities will allow us to raise grants from other funding agencies (governmental and corporate) to support the technology innovation programs. We will create a membership program for corporates with annual fees, to have a steady revenue stream. In addition, by the end of 5 years some revenue via licensing of developed technologies will start flowing in, which can be pumped back into R&D. Some details are below:

- Yearly grants from DST for Years 4 & 5: 30Cr
- Corporate grants via memberships (yearly): 10Cr
- R&D Grants (yearly): 5Cr
- Translation Grants (yearly): 10Cr

Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka







Robert Bosch Centre for Cyber-Physical Systems  
Division of Interdisciplinary Research  
INDIAN INSTITUTE OF SCIENCE, Bangalore 560012



### Addendum

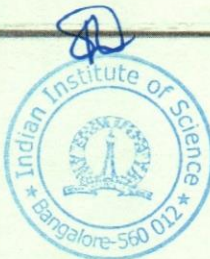
**Key Differentiators / Value Proposition of ARTPark, over other similar Government of Karnataka (GoK) initiatives**

The following table compares the two existing initiatives and ours.

Item	COE-DSAI	MINRO	ARTPark
Host Institution	NASSCOM	IIT Bangalore	IISc
Themes	AI & Data Science	Machine Intelligence and Robotics	Robotics and Autonomous Systems,
Technology Focus Areas	AI in different application verticals	Language Translation, Robotics, IOT and Drones, Machine Learning, Smart Governance, Urban Mobility and Transportation	Drone Skyways, Tele-Robotics, Autonomous Vehicles, Microbotics,
Activities	Skills Development Courses, Incubation space	Research projects, Academic courses, PhD and Master's projects	Mission oriented technology innovation projects spanning hardware, software and algorithms, Technopreneurship program to pre-incubate startups, World-class experimental facilities in robotics, drones and Autonomous ground vehicles
Research Facilities	None	Faculty Labs	Makery to make robotics prototypes and host various robots; Dronary - to test drones; Road test circuit and Drone skyways in IISc's Chalfekere campus; Dataset facility for curated data sets for robotics and AI
Industry engagement	Nasscom and others	Not clear	Strong Industry partnership and interest to use the facilities and provide sponsorship.

*[Signature]*

Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka







Robert Bosch Centre for Cyber-Physical Systems  
Division of Interdisciplinary Research  
INDIAN INSTITUTE OF SCIENCE, Bangalore 560012



Academic program	Skills courses	Courses and PhD and Masters students in IITB	Support for BTech, MTech and PhD students from other colleges in Bangalore and Karnataka
Startups	Incubation space	Tied to their existing incubation program	Partnership with AIOT Foundry to create "Innovation to Impact" which will translate research into tangible products and startups via Innovation Studio. Program will involve of Technopreneurs, in-residence, pre-incubation and connect with other prominent VCs.
Other funding sources	Not clear	Not clear	DST (Govt) and possibly corporates via CSR grants.
Implementation vehicle	Separate legal entity	Likely a project within IITB	Section-8 not-for-profit, autonomous company, wholly owned by IISc and will be professionally run with strong industry participation.

In summary, the three centers address different needs and in fact can work synergistically together to create global level companies and jobs for Karnataka in this emerging area of AI and Robotics.

**Current status of funding received from Government of India (GoI) and its utilization, if any.**

DST, GoI has released INR 7.26Cr already. It is not utilized yet as we are in the process of setting up ARTPark as a section 8, not for profit company. We will transfer the funds to that once it is set up (in a month). We are also expecting funds of about INR 110Cr from DST shortly, post the creation of ARTPark, for which DPR has already been submitted.

#### **Role of GoK**

Government of Karnataka will be a founding member of ARTPark, along with DST, GoI, IISc and AIOT Foundry. We request Additional Chief Secretary, IT-DT to be a member of the Hub Governing Board to help guide the strategy and operations of ARTPark.

GoK can also help provide specific policy support for initiatives involving startups and manufacturing in robotics and autonomous systems, provide special economic zones for such companies as well as allocate land for creation of extensive testing and certification facilities, including support for 5G infrastructure and pilots in various application verticals like agriculture, mining, healthcare, education, smart cities, transportation/logistics, etc.

Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka







Robert Bosch Centre for Cyber-Physical Systems  
Division of Interdisciplinary Research  
INDIAN INSTITUTE OF SCIENCE, Bangalore 560012



Clearly defined benefits in terms of specific targets and tangible outcomes for Karnataka-based units/ groups (MSMEs and Startups, Elevate winners, etc.). Please list them out and also express with respect to GoK funding.

**Manpower development:**

ARTPark will support skills development via supporting youth via stipends to bachelors, masters and PhD levels, with target numbers listed in the table below. Students from colleges in Bangalore and Karnataka will be supported via these fellowships.

HRD (Skills Development, Stipends etc.)	
Item	ARTParkNumbers (Yr)
High End Skill Development (Associates)	40
Graduate Fellowships	50
Post-Graduation Fellowships	20
Doctoral Fellowships	10
Post-Doctoral Fellowships	5

**Startups and Job Creation:**

We aim to create about 30 startups leading to about 1500 direct jobs and 15000 indirect jobs.

**MSME & Elevate winners connect:**

MSMEs and Elevate winners from Karnataka will have access to our facilities on a priority basis at subsidized rates. In addition they can benefit from the short courses for skills development as well as mentorship and guidance from ARTPark. They will also have an opportunity to collaborate/co-create on specific R&D and technology innovation projects, as well as an opportunity to license cutting edge technologies from ARTPark.

**Clear reference to GoK's support (fiscal & non-fiscal).**

- INR 20Cr/year for a 3-year period for a total of INR 60Cr.
- Provide specific policy support for initiatives involving
  - o Startups in robotics and autonomous systems
  - o Manufacturing in robotics and autonomous systems,
  - o Creation of special economic zones for such companies
  - o Allocation of land for creation of extensive testing and certification facilities
  - o Support for setting up of 5G testing Infrastructure
  - o Support for running pilots in various application verticals like agriculture, mining, healthcare, education, smart cities (utility mapping, road history, data smart cities, drone corridors etc.), transportation/logistics, etc.

**Please list of GoK specific deliverables in addition to GoI.**

- Fellowship and Internship support to about 125 students across PhD, Masters and Bachelor's levels for specialized training in Robotics and Autonomous Systems
- Creation of startups and direct and indirect jobs resulting from them

Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka







Robert Bosch Centre for Cyber-Physical Systems  
Division of Interdisciplinary Research  
INDIAN INSTITUTE OF SCIENCE, Bangalore 560012



- Advanced Robotics and Autonomous systems facilities, with next generation wireless infrastructure of 5G and WiFi6 will be created both in Bengaluru, that will benefit the hi-tech industry here as well as Challekere, which will benefit the North Karnataka ecosystem.
- Creation of advanced technology clusters supporting globally competitive research translation and technology creation activities.

Please share delineated workings of the tripartite operational arrangement of GoI-GoK-IISc.

ARTPark's vision is to create globally competitive companies based out of Karnataka/India in the areas of AI, Robotics and Autonomous Systems.

Its mission is to ensure that mission projects at the intersection of societal impact, economically sustainable and deep technology, lead to translation of cutting-edge research into viable technologies that lead to setting up of world-class companies.

The ARTPark will enter into an MoU with GOK, IISc and GoI, that will clearly define the workings and roles, both operationally as well as strategically.

Broadly speaking, here are the key points:

- ARTPark will be a section 8 not-for-profit company wholly owned by IISc
- ARTPark will be governed by a Hub Governing Board, which will be chaired by IISc Director and have as members: a DST representative, GoK representative and members from some key industries.
- ARTPark will fund mission mode projects at IISc and other academic institutions via research grants and fellowships to students
- ARTPark will create facilities in IISc campuses (in Bengaluru and Challekere), which will be made available to ecosystem partners (Academia, MSME, Startups, Industries).





No: KITS/IT/AIRP/1/2020(Comp No: 299206)/85

Date: 22-09-2020

To,

The Additional Chief Secretary,  
Department of Electronics, IT, Bt and S&T,  
5th Stage, 6th Floor,  
M.S. Building,  
Bengaluru - 560001.

Sir,

**Sub:** Proposal to establish Artificial Intelligence and Robotics Technologies Park in association with Indian Institute of Science (IISc), Bengaluru - reg;

**Ref:** Proposal from KITS vide no. KITS/IT/AIRP/1/2020 dated: 07.07.2020

With reference to above, as discussed during the meeting held under the Chairmanship of Additional Chief Secretary, Department of Electronics IT, Bt and S&T on 15.09.2020, the revised budgetary requirement for setting up Artificial Intelligence and Robotics Technologies Park in association with IISc is given below:

**GoK & GoI (DST) Funding Pattern (INR Crores)**

Entity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
GoK	10	12.5	12.5	12.5	12.5	60
GoI	30	30	30	30	30	150

In the view of the above, it is requested to accord approval for establishing the "AI and Robotics Technologies Park" in association with IISc. The total budget required is INR 60 Cr over a period of 5 years and KITS would require additional budget for implementing the same. In this regard, it is requested to issue necessary Government Order.

Thanking You,

Yours sincerely,



*(Signature)*  
(Meena Nagaraj C.N)  
Managing Director, KITS

Address: BVTC Building 4th Floor, (TMC B' Block Above Bus Stand) Shanthinagar, Bengaluru - 560 027, INDIA

☎ 080 - 2223 1008 ☎ 080 - 2223 1006 | 🌐 www.kits.karnataka.gov.in | ✉ info.kits@karnataka.gov.in, meena@kitsnet.com

INNOVATE  
KARNATAKA

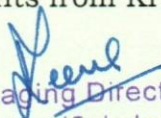
*(Signature)*  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka





**HUB GOVERNING BOARD**

The HGB will be constituted in the manner prescribed in the GOI Agreement and this MoA. The Additional Chief Secretary Department of Electronics, IT, Bt and S&T, GoK will be a member of the HGB. The HGB will meet at least once a year and will be the supreme decision-making body for management of I-Hub-ARTPark. The HGB will review the overall progress made by I-Hub-ARTPark and recommend for release of the next tranche of grants from KITS/GOK.

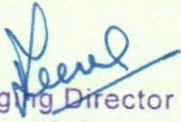
  
 Managing Director  
 Karnataka Innovation and Technology Society (KITS)  
 Department of Electronics, IT, Bt and S&T  
 Govt. of Karnataka





**PROJECT MONITORING COMMITTEE & PROJECT ADVISORY  
COMMITTEE**

1. A Project Monitoring Committee (**PMC**) will be formed with representatives from GoK, IISc, and Research Head & Director and CEO of I-Hub- ART Park to review the work at the operational level. The committee will meet up to two times a year.
2. A Project Advisory Committee (PAC) will be formed with invitees from all stakeholders to advise the PMC as and when necessary and called for by PMC.



Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka



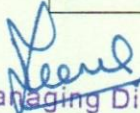


BUDGET

KITS, Department of Electronics, IT, Bt and S&T, GoK Grant Budget	INR Crores					
Items	Y1	Y2	Y3	Y4	Y5	Total
CAPEX						
Facilities (Testbeds, Equipments)	6	5	1.5	0.5	0.5	13.5
OPEX						
HRD (Stipends, Fellowships, Training)	1	1	1	1	1	5
Operations (Facilities Maintenance, Technology Translation, Overheads)	3	5.5	8.5	9	7	33
Startup support	0	1	1.5	2	4	8.5
Total	10	12.5	12.5	12.5	12.5	60

GoK&GoI (DST) Funding Pattern (INR Crores)

Entity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
GoK	10	12.5	12.5	12.5	12.5	60
GoI	22.25	46	56	31	14.75	170

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka

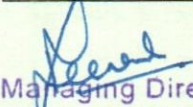




Detailed CAPEX and OPEX

These are indicative only. Detailed purchases will vary based project requirements

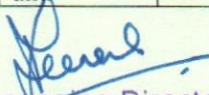
Year 1		Year 2		Year 3		Year 4		Year 5	
CAPEX									
Item	INR Lakh s	Item	INR Lakh s	Item	INR Lakh s	Item	INR Lakh s	Item	INR lakhs
6DOF Collaborative Arm	60	Civil Work	50	Compute & Equipment	50	Equipment	50	Equipment	50
6DOF Industrial Arm	30	Radar, tracking and signalling, Scada, AR/VR, HCI equipment	75	Robots & Other Equipment	100				
3DOF Mini Arm	10	Next Gen Wireless Equipment	100						
3D Printers	30	Maintenance Garage	75						
VR/AR Kits, Haptic Gloves	30	Air Vehicles	100						
Humanoid Robot	60	Ground Vehicles	100						
Small Humanoid Robots	25								
Small Mobile Bots	50								
Minibots	15								
Sensors and Actuators	150								

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka





(Lidars, mm-wave radars, Stereo cameras)									
MoCAP system	90								
On-Prem Compute/ Storage/net work	50								
<b>CAPEX Sub Total (INR Lakhs)</b>	<b>600</b>		<b>500</b>		<b>150</b>		<b>50</b>		<b>50</b>
<b>OPEX</b>									
<b>Item</b>	<b>Year 1</b>		<b>Year 2</b>		<b>Year 3</b>		<b>Year 4</b>		<b>Year 5</b>
Skill Development (includes content development, delivery, management)	100		100		100		100		100
Technology Innovation support (includes graduate fellowships, faculty research grants, facilities maintenance, technical and	300		550		850				

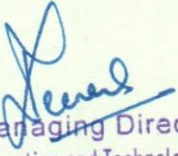
  
**Managing Director**  
 Karnataka Innovation and Technology Society (KITS)  
 Department of Electronics, IT, Bt and S&T  
 Govt. of Karnataka

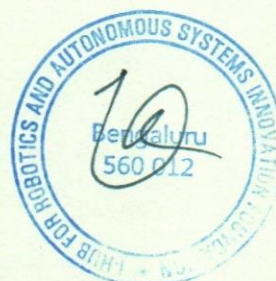




managerial staff )									
							900		700
Translation Grants for startups/Pre-startups	0		100		150		200		400
OPEX Sub Total	400		750		1100		1200		1200
Total	1000		1250		1250		1250		1250

- Release of Grant to I-HUB-ARTPark shall be tranche wise depending on the budget released by Government to KITS.
- The first tranche will be released after signing the MoA.
- KITS will be releasing subsequent tranches based on the recommendations of the Hub Governing Board or any other committee assigned to review progress of the Project.

  
 Managing Director  
 Karnataka Innovation and Technology Society (KITS)  
 Department of Electronics, IT, Bt and S&T  
 Govt. of Karnataka





**CONDITIONS ATTACHED TO THE GRANTS**

1. The Grant being released to I-Hub-ARTPark should be exclusively spent by I-Hub-ARTPark for the purpose for which it has been sanctioned within the stipulated time (as mentioned in the MoA). All the assets wholly acquired from the Grant amount sanctioned by GOK from time to time will be the property of Government of Karnataka/ KITS and should not, without the prior sanction of KITS/Department of Electronics, Information Technology, Biotechnology and Science & Technology, GOK, be disposed of or encumbered or utilized for purposes other than those for which the Grant has been sanctioned. A separate Asset Register has to be maintained for this purpose.
2. At the conclusion of the Project, KITS/the Govt. of Karnataka will be free to sell or otherwise dispose of assets, which are the property of the Government unless required by I-Hub-ARTPark. I-Hub-ARTPark shall render to Government necessary facilities for arranging the sale of these assets. The Government of Karnataka/KITS has the discretion to gift the assets to I-Hub-ARTPark if it considers it appropriate.
3. I-Hub-ARTPark is required to send to KITS a list of assets referred to the above in point no. 2 at the end of each financial year, as well as at the time of seeking further instalment of the Grant.
4. KITS, on behalf of the Government of Karnataka has agreed to provide Grant support to I-Hub-ARTPark amounting to INR 10,00,00,000/- (Ten crores) for the first year, and INR 12,50,00,000 /- (Twelve crores, Fifty Lakhs) for the subsequent four years of operations, amounting to a total of INR 60,00,00,000 /- (Sixty crores) for a period of five years. Of this, INR 13.5 Cr will be for Capex and INR 46.5 Cr/- for Opex.

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka





5. At least 15 (fifteen) days prior to the date upon which any annual Grant is to be transferred to I-Hub-ARTPark(except the first Grant for the first year), I-Hub agrees that it will submit to KITS the following documents, failing which, KITS reserves the right to withhold any payment of Grant till such documents are received in any format specified by KITS:

I. A half yearly progress report;

II. A yearly progress report;

III. Audited financial report updated till the date upon which the Grant is to be received;

IV. Statement of the rental amounts received from users of facilities in I-Hub-ARTPark set up with the Grants.

V. CA certified Utilization certificate and income and expenditure Account. Bank Statements for the period mentioned in the Utilization Certificate.


6. KITS hereby reserves the right to inspect/audit the premises, books/books of account of I-Hub-ARTPark and any other supporting documentation at any time it deems fit to do so upon providing at least 7 (seven) days' notice to I-Hub-ARTPark; such notice so provided by KITS shall include details of the persons who will form the inspection team and, in as much detail as possible, the documents and items that KITS wants to inspect, unless such inspection is general in nature, in which case the notice will provide such reference. Upon receipt of such notice, I-Hub-ARTPark will ensure that the premises, books and records and all allied documentation are available for inspection by KITS.

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka





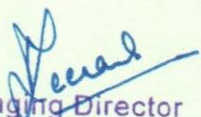
7. I-Hub-ARTPark agrees that it shall do all things necessary to facilitate inspection in the manner provided under this MoA by KITS and that it shall not hinder the inspection conducted by KITS in any manner.
8. Grant register shall be maintained. I-Hub-ARTPark will keep the whole of the Grant in a separate bank account earning interest and the interest so earned should be reported to KITS in the Utilization Certificate and income and expenditure account. The interest so earned will be adjusted towards further instalment(s) of the Grant, and/or at the time of final settlement of accounts, or the interest so earned shall be returned to KITS at the end of the Project.
9. Any income/ revenue generated as a result of the Project shall be used for I-Hub-ARTPark activities and programmes, with prior permission from Hub Governing Board.
10. Any publicity of I-Hub-ARTPark or any papers published based on the research work done under I-Hub-ARTPark through utilisation of the Grant(s) should acknowledge the financial support received from KITS / Department of Electronics, IT, Bt and S&T.
11. I-Hub-ARTPark shall recruit suitable personnel after following transparency procedures and obtaining the approval of Governing Board/ PMC and remuneration shall be paid for such personnel from out of the Grants. Such recruitment shall be Project related and only for Project duration. No permanent posts shall be created under the Project. Any personnel required for the Project may be hired on solely a temporary basis, without creating a liability on KITS and limited to the funds available for the purpose.
12. I-Hub-ARTPark shall procure goods and services following transparency procedures for establishing and operationalising the I-Hub.

  
**Managing Director**  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka





13. Any unspent balance out a Grant shall either be refunded to KITS /Government of Karnataka or specific concurrence of the KITS /Government of Karnataka shall be obtained by I-Hub-ARTPark to carried forward the Grant for expenditure during the next financial year.
14. I-Hub-ARTPark shall submit any other document, invoice, bills etc as required by KITS, and as shall be notified in writing.
15. In case of conflicting terms between Government Order and other documents, the terms of the Government Order shall prevail.

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka

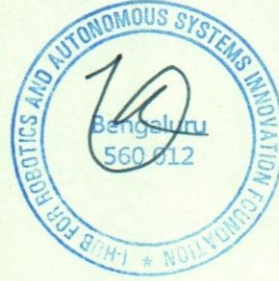




**LIST OF DELIVERABLES**

1. Fellowship and internship support to about 125 students across PhD, Masters and Bachelor's levels for specialised training in Robotics and Autonomous Systems over five years.
2. Creation of startups and direct and indirect jobs resulting from them.
3. Advanced Robotics and Autonomous systems facilities, with next generation wireless infrastructure of 5G and WiFi6 will be created both in Bengaluru, that will benefit the hi-tech industry in Bengaluru, as well as Challekere, which will benefit the North Karnataka ecosystem, and
4. Creation of advanced technology clusters supporting globally competitive research translation and technology creation activities.

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka





MAJOR MILESTONES AND TARGET DATES

Milestones and deliverables (5 years)

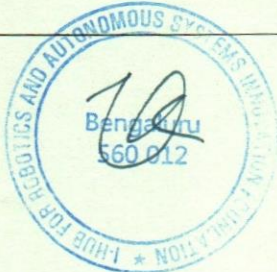
No	Item MI	Numbers (5 year period) With GoK Funding (60cr)	Number (5 Year Period) with DST funding (170Cr)
1	Facility creation for robotics, autonomous vehicles	Indoor and Outdoor in IISc main campus and Challakere campus	
2	Number of Student Stipends for Masters/PhD	150	300
3	Number of students undergoing Skills Training	300	1000
4	Number of Technology products/IP	10	30
5	Number of startups created	10	30

No	Item MI	Numbers (5 year period) With GoK Funding (60cr)
1	Facility creation for robotics, autonomous vehicles	Indoor and Outdoor in IISc main campus and Challakere campus
2	Number of Student Stipends for Masters/PhD	150
3	Number of students undergoing Skills Training	300
4	Number of Technology products/IP	10
5	Number of startups created	10

Timelines

No	Description	Year
1	Facility creation in IISc main campus, Technology Innovation projects - batch 1 Technopreneurship program created and first batch graduated to startup incubation Basic skills training course developed and first batch graduated Collaboration with MSME/Industry - batch 1	1
2	Facility creation in IISc Challakere campus Technology Innovation projects - batch 2	2

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka





	Technopreneurship program created and second batch graduated to startup incubation Intermediate skills training course developed and second batch graduated Collaboration with MSME/Industry - batch 2	
3	Facility upgradation Technology Innovation projects - batch 3 Technopreneurship program created and third batch graduated to startup incubation Advanced skills training course developed, and third batch graduated Collaboration with MSME/Industry - batch 3	3
4	Facility upgradation Technology Innovation projects - batch 4 Technopreneurship program created and third batch graduated to startup incubation Advanced skills training course developed, and third batch graduated Collaboration with MSME/Industry - batch 4	4
5	Facility upgradation Technology Innovation projects - batch 5 Technopreneurship program created and third batch graduated to startup incubation Advanced skills training course developed, and third batch graduated Collaboration with MSME/Industry - batch 5	5

• **Sustainability Plan after 5 years:**

The investment in creating facilities will allow raising grants from other funding agencies (governmental and corporate) to support the technology innovation programs. A membership program with annual fees will be created for corporates, to ensure a steady revenue stream. In addition, at the end of 5 years some revenue via licensing of developed technologies will start flowing in, which can be pumped back into R&D. Some details are as below:

1. Corporate grants (yearly): Approx. INR 10Cr.
2. R&D grants (yearly): Approx. INR 5Cr.
3. Translation grants (yearly): Approx. INR 10Cr.

  
Managing Director  
Karnataka Innovation and Technology Society (KITS)  
Department of Electronics, IT, Bt and S&T  
Govt. of Karnataka

