

Verification Submitted Institute Data for Atal Ranking of Institutions on Innovation Achievements (ARIIA) - 2020-21

Institute Name: Indian Institute of Space Science and Technology [ARI-U-0255]

List all the departments / centers / units are part of innovation and startup ecosystem of the institute

Srno	Department / Center / Unit Name	Type of Department / Center / Unit	Mention the Stream / Discipline / Sector of focus	Department / Center / Unit Level	Program Type	Student / Beneficiary Strength (2019-20)	Academic Staff Strength (2019-20)	Non-academic Staff Strength (2019-20)
1	AEROSPACE ENGINEERING	Academic Department with lab facility	AEROSPACE APPLICATIONS	UG / PG / PhD	Technical	325	22	6
2	Avionics	Academic Department with lab facility	Avionics of space applications	UG / PG / PhD	Technical	346	22	3
3	Physics	Academic Department with lab facility	various space applications	UG / PG / PhD	Technical	138	13	1
4	Earth and space sciences	Academic Department with lab facility	Various applications such as remote sensing, astronomy etc	UG / PG / PhD	Technical	58	14	0
5	Chemistry	Academic Department with lab facility	various space applications	UG / PG / PhD	Both	33	8	0
6	Mathematics	Academic Department with lab facility	Multidisciplinary	UG / PG / PhD	Technical	29	11	0
7	Humanities	Academic Department with lab facility	mutidisciplinary	UG / PG / PhD	Both	10	5	0
8	Placement Unit	Industry Institute Interface Unit	Interaction with industry	Not Allowed	Not Allowed	0	2	1

Participation of HEI in Innovation & Entrepreneurship Initiatives of Ministry of Education (Till Today)

Programs/Initiatives	Status	Registration ID
Adopted National Innovation and Start-up Policy at the HEI	No	Not Required
Establishment of Institution's Innovation Council (IIC) at HEI	NO	Not Required
Trained Innovation Ambassadors at HEI	NO	Not Required
Participation in Smart India Hackathon (SIH)	Yes	Not Required
Facilitated listing start-ups/ technologies in Young India combating COVID with Knowledge, Technology and Innovation (YUKTI 2.0) portal of MIC	No	Not Required

Participation of HEI in Innovation & Entrepreneurship Initiatives of Ministry of Education (Till Today)

Participation in National Education Alliance of Technology (NEAT)	Yes	Not Required
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Section 1 > i : Details of Co-curricular events/programs related to Innovation, IPR and Entrepreneurship/Start-up Conducted by the HEI

No Data Filled!

Section 1 > ii : Details of Students, Faculties/Staff Participation/Representation in Co-curricular events/programs related to Innovation, IPR and Entrepreneurship/Start-up at the State, National and (or) International Level (Organized by External Organizations) sent by the HEI

Srno	Name of Program (Full Name)	Program Theme	Program Type	Organizin g Agency / Institute Name	Organizin g Agency Type	Program Start Date	Program End Date	Program Duration(i n Days)	Participa nts (Students)	Participa nts (Faculty)	Total Number of Participa nts	Awards/R ecognitio ns/Achiev ements	Award / Position / Recogniti on Secured	Title of Innovatio n / Start-up Secured the Award / Recogniti on	Had institute spent expenses either from own resource/ received fund towards sending delegation to participate / represent the activity /event?	Did any of the participants received any awards/recognition for startup / innovation ideas / research							
1	Dare to dream contest	Innovatio n	Innovatio n Contest	DRDO	Govt. Agency (Central)	15-10-20 19 00:00:00	15-10-20 19 00:00:00	1	2	0	2	Yes	First Prize	Designed a four legged walking robot	No	<table><tr><td>Award / Position / Recognition Secured</td><td>First Prize</td></tr><tr><td>Title of Innovation / Start-up Secured the Award / Recognition</td><td>Designed a four legged walking robot</td></tr><tr><td>Award/Recogn ition/Achieve ment Received for</td><td>Idea/Innova tion/Prototy pe</td></tr></table>		Award / Position / Recognition Secured	First Prize	Title of Innovation / Start-up Secured the Award / Recognition	Designed a four legged walking robot	Award/Recogn ition/Achieve ment Received for	Idea/Innova tion/Prototy pe
Award / Position / Recognition Secured	First Prize																						
Title of Innovation / Start-up Secured the Award / Recognition	Designed a four legged walking robot																						
Award/Recogn ition/Achieve ment Received for	Idea/Innova tion/Prototy pe																						

Section 1 > ii : Details of Students, Faculties/Staff Participation/Representation in Co-curricular events/programs related to Innovation, IPR and Entrepreneurship/Start-up at the State, National and (or) International Level (Organized by External Organizations) sent by the HEI

2	INAE Innovative student projects	Innovation	Innovation Contest	INAE	Non-Govt. Agencies	01-05-2019 00:00:00	31-03-2020 00:00:00	33	5	0	5	Yes	Best innovative projects award - 5 Nos	PS4 NET- An opportunistic software defined networking framework over PSLV debris, Dedecagonal voltage space vector based direct torque control scheme for open end winding induction motor with a single dc source, Complexity cyclostationary feature detection from subnyquist samples, Harnessing deep generative models for multimedia data hiding	No	<table><tr><td>Award / Position / Recognition Secured</td><td>Best innovative projects award - 5 Nos</td></tr><tr><td>Title of Innovation / Start-up Secured the Award / Recognition</td><td>PS4 NET- An opportunistic software defined networking framework over PSLV debris, Dedecagonal voltage space vector based direct torque control scheme for open end winding induction motor with a single dc source, Complexity cyclostationary feature detection from subnyquist samples, Harnessing deep generative models for multimedia data hiding</td></tr><tr><td>Award/Recognition/Achievement Received for</td><td>Novel Research Paper/Work</td></tr></table>	Award / Position / Recognition Secured	Best innovative projects award - 5 Nos	Title of Innovation / Start-up Secured the Award / Recognition	PS4 NET- An opportunistic software defined networking framework over PSLV debris, Dedecagonal voltage space vector based direct torque control scheme for open end winding induction motor with a single dc source, Complexity cyclostationary feature detection from subnyquist samples, Harnessing deep generative models for multimedia data hiding	Award/Recognition/Achievement Received for	Novel Research Paper/Work
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Award/Recognition/Achievement Received for	Novel Research Paper/Work																					
3	Covid AR Challenge	Innovation	Innovation Contest	Govt of India	Govt. Agency (Central)	01-01-2020 00:00:00	31-03-2020 00:00:00	91	2	0	2	No	---	---	No	No						
4	GOOGLE SUMMER CODE 2020	Innovation	Training	GOOGLE	Corporate / Industry Association	01-01-2020 00:00:00	31-03-2020 00:00:00	91	1	0	1	No	---	---	No	No						

Section 1 > ii : Details of Students, Faculties/Staff Participation/Representation in Co-curricular events/programs related to Innovation, IPR and Entrepreneurship/Start-up at the State, National and (or) International Level (Organized by External Organizations) sent by the HEI

5	INDIA INNOVATION CHALLENGE DESIGN CONTEST 2019	Innovation	Innovation Contest	DST, AICTE	Govt. Agency (Central)	01-04-2019 00:00:00	31-12-2019 00:00:00	27	10	0	10	Yes	Reached quarter final stage	power electronics	No	<table><tr><td>Award / Position / Recognition Secured</td><td>Reached quarter final stage</td></tr><tr><td>Title of Innovation / Start-up Secured the Award / Recognition</td><td>power electronics</td></tr><tr><td>Award/Recognition/Achievement Received for</td><td>Idea/Innovation/Prototype</td></tr></table>	Award / Position / Recognition Secured	Reached quarter final stage	Title of Innovation / Start-up Secured the Award / Recognition	power electronics	Award/Recognition/Achievement Received for	Idea/Innovation/Prototype
Award / Position / Recognition Secured	Reached quarter final stage																					
Title of Innovation / Start-up Secured the Award / Recognition	power electronics																					
Award/Recognition/Achievement Received for	Idea/Innovation/Prototype																					
6	IEEE IMCPW 2019	Innovation	Conference	IEEE	Corporate / Industry Association	22-05-2019 00:00:00	24-05-2019 00:00:00	3	1	0	1	Yes	Best Paper award	Tunable Multifunctional Reconfigurable Step Profiled Dielectric Resonator Antenna for Cognitive Radio Applications	No	<table><tr><td>Award / Position / Recognition Secured</td><td>Best Paper award</td></tr><tr><td>Title of Innovation / Start-up Secured the Award / Recognition</td><td>Tunable Multifunctional Reconfigurable Step Profiled Dielectric Resonator Antenna for Cognitive Radio Applications</td></tr><tr><td>Award/Recognition/Achievement Received for</td><td>Novel Research Paper/Work</td></tr></table>	Award / Position / Recognition Secured	Best Paper award	Title of Innovation / Start-up Secured the Award / Recognition	Tunable Multifunctional Reconfigurable Step Profiled Dielectric Resonator Antenna for Cognitive Radio Applications	Award/Recognition/Achievement Received for	Novel Research Paper/Work
Award / Position / Recognition Secured	Best Paper award																					
Title of Innovation / Start-up Secured the Award / Recognition	Tunable Multifunctional Reconfigurable Step Profiled Dielectric Resonator Antenna for Cognitive Radio Applications																					
Award/Recognition/Achievement Received for	Novel Research Paper/Work																					
7	Swadeshi Microprocessor Challenge by MeITY	Innovation	Innovation Contest	C-DAC	Govt. Agency (Central)	01-03-2020 00:00:00	31-03-2020 00:00:00	31	5	1	6	Yes	Qualified for semi-finals	Energy Beamforming for Wireless Information and Power Transfer using shakti processor for IoT Application	No	<table><tr><td>Award / Position / Recognition Secured</td><td>Qualified for semi-finals</td></tr><tr><td>Title of Innovation / Start-up Secured the Award / Recognition</td><td>Energy Beamforming for Wireless Information and Power Transfer using shakti processor for IoT Application</td></tr><tr><td>Award/Recognition/Achievement Received for</td><td>Idea/Innovation/Prototype</td></tr></table>	Award / Position / Recognition Secured	Qualified for semi-finals	Title of Innovation / Start-up Secured the Award / Recognition	Energy Beamforming for Wireless Information and Power Transfer using shakti processor for IoT Application	Award/Recognition/Achievement Received for	Idea/Innovation/Prototype
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Award/Recognition/Achievement Received for	Idea/Innovation/Prototype																					

Section 2 > i : List the Academic Programs on Innovation, IPR and Entrepreneurship Development Offered During the Academic Period (2019-20)

No Data Filled!

Section 2 > ii : List the Employment Generation Skill Development Programs Organized by the HEI on Innovation, IPR and Entrepreneurship Development During the Academic Period (2019-20)

No Data Filled!

Section 2 > iii : List the Full Time Faculties had with a Degree (UG/PG/PhD) in Innovation/IPR/Entrepreneurship and (or) Received Specialized Training program of I&E, IPR (MDP, EDP, FDP, Short-term Certificate Course, of minimum 30 hours Duration) conducted by various State, Central Govt. agencies, and Knowledge Agencies in the Academic Period (2019-20)

No Data Filled!

Section 3 > i : List Idea/Innovation Centric Student Clubs Are Functional at the HEI with Access to Co-working Space/Work-stations for Students with Facilities & Equipment Available to promote and Support Innovation, Entrepreneurship and IPR Activities in Campus

Srno	Name of Student Club	Type of Club	Year of Establishment	Type of Facilities Available at the Club	Student Club with Access to Other I&E Facilities at the HEI	No of Programs/Activities Organized by the Student Club During the AY 2019-20	Student Club Team Lead Name	Student Club Team Lead Email	Student Club Team Lead Phone
1	Aeroclub	Idea Club	2013	Work Stations	Centre of Excellence with Advance Tools	5	Sanjay Joseph Chacko	sanjay.sc19b052@ug.iist.ac.in	7306391879

Section 3 > ii > a : List the Pre-Incubation Facility (Tinkering Lab/Makers' Space/Design Centre/New Gen IEDC/IEDC/EDC/Innovation Centre/Startup Cell) (>= 600 Sq. Ft. Floor Area)

No Data Filled!

Section 3 > ii > b : List the Centre of Excellence (CoE) Facilities with Advance Tools and Equipment at the HEI (>= 1000 Sq. Ft. Floor Area)

Srno	Name of CoE Facility	Year of Establishment	CoE with Access to Other I&E Facilities at the HEI	Name of the Funding Schemes Available with CoE, if any (Optional)	Facility Details	Total Nos of Dedicated Executive/Management team Strength Engaged at the Facility	Had the CoE Provided any Funding Support for Idea/Prototype/Innovation Development and implementation during the Financial Year 2019-20?	Had institute Generated Income either from Services Offered by CoE Centre/Facilities?	Had institute spent expenses either from own resource/received fund towards Establishment/Operation of CoE Centre/Facilities?						
1	Advanced Propulsion and Laser Diagnostics	2010	Innovation Labs	: Institute funds	<table><tr><td>Facility Incharge Name</td><td>Dr Aravind V</td></tr><tr><td>Facility Incharge Email</td><td>aravind7@iist.ac.in</td></tr><tr><td>Facility Incharge Phone</td><td>94460 01518</td></tr></table>	Facility Incharge Name	Dr Aravind V	Facility Incharge Email	aravind7@iist.ac.in	Facility Incharge Phone	94460 01518	1	No	No	Yes
Facility Incharge Name	Dr Aravind V														
Facility Incharge Email	aravind7@iist.ac.in														
Facility Incharge Phone	94460 01518														

Section 3 > ii > b : List the Centre of Excellence (CoE) Facilities with Advance Tools and Equipment at the HEI (>= 1000 Sq. Ft. Floor Area)

Source of Grant / Fund	Agency Name	Agency Type	Total Grants / Funds Received by CoE Facility exists in Campus (In Rupees)
Institute's Own Fund / Resource	-	-	5481090

Section 3 > ii > c : List the Incubation Facilities at the HEI (>= 1500 Sq. Ft. Floor Area)

No Data Filled!

Section 3 > ii > d : List the Innovation Park/Research Park Facilities at the HEI (>= 5000 Sq. Ft. Floor Area)

No Data Filled!

Section 3 > ii > e : List the IPR Cell/Technology Transfer Centre Facilities at the HEI

No Data Filled!

Section 3 > iii > a : Provide detail list of Faculties as Mentor to help Ideas/Innovations/Startups

No Data Filled!

Section 3 > iii > b : Provide detail list of External Experts/Agencies engaged as Mentor to help Ideas/Innovations/Startups

No Data Filled!

Section 4 : List all the Innovations Generated Developed, Completed and Implemented in Ground with Support of Pre-incubation & Incubation facilities at the HEI and Recognitions Received

Srno	Name of the Innovation Generated with the Support of HEI	Type of Innovation	Nature of Innovation	Name of the HEI Supported Innovation Development	Innovation Developed by	Stage of Innovation/ Stage of TRL it started receiving the Support during the FY 2019-20	Stage of Innovation/ Stage of TRL reached as on 31st March 2020	Status Pre-Incubation/Incubation Support to Innovation as on 31st March 2020	Had the Innovation Received any Recognition at State, National, International Level Programs during the financial period 2019-20	Had the Innovation Converted into Venture/Startup/SME Unit during the financial period 2019-20	Had Centre/institute provided any Financial support (either own resource or fund received from agencies) in terms of Seed Grant/Fund Support to Idea / Prototype / Innovations Development during the financial period 2019-20	Had the Innovations raised any Seed fund/Angel Investment/VC during the period of receiving pre-incubation/incubation support at your Pre-incubation/incubation or HEI during the financial period 2019-20	Had the Pre-incubation/Incubation Centre/HEI received any income/revenue from Idea/Prototype/Innovations for the pre-incubation/incubation support and the services offered by Pre-incubation/incubation or institute during the financial period 2019
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1	Robotics for Non Destructive Testing	Product Innovation	Technological	Robotics Lab	Student	TRL 4 : Small scale prototype built in a laboratory environment ("ugly prototype").	TRL 4 : Small scale prototype built in a laboratory environment ("ugly prototype").	Innovation Development Ongoing	<div>Agency Name</div> <div>Agency Type</div> <div>Award / Position / Recognition Secured</div>	DRDO Dare to Dream Contest and KSUM Startup Idea tion Grant	Govt. Agency (Central)	1st prize winner	No	No	No	No
Name					Type				Gender			Email			Contact	
Saurabh Chatterjee					Student				Male			saurabhsaurc@gmail.com			7034739517	
Name					Type				Gender			Email			Contact	
Vignesh K.C					Student				Male			kcvignesh693@gmail.com			8907460730	

Section 5 : List all the Ventures/Startups/SME Units Established with Support of Pre-incubation & Incubation facilities at the HEI

No Data Filled!

Section 7 > i : List all the Collaborations with External Agencies and Co-Creation of I&E Activities by the HEI

No Data Filled!

Section 8 > ii : List the IPs Filed/Published/Granted (Copyright & Designs Only) by the HEI as an Applicant / Co-applicant / Co-owner

No Data Filled!

Section 8 > iii : List the IP (Patents only) Filed by the HEI as Applicant / Co-applicant / Co-owner

No Data Filled!

Section 8 > v : List the IPs hold by the Innovation teams/Startups Incubated at the Pre-incubation/incubation Unit of the HEI

No Data Filled!

Section 8 > vi : List the IP Commercialized/Transferred Published & Granted to HEI as Co-applicant/Co-owner

No Data Filled!

Declaration

To,
The ARIIA Committee
MHRD's Innovation Cell
New Delhi

Joint Declaration by the Head of the Institute and Nodal Officer

Dear Sir,

Herewith, myself Dr. V K Dadhwal (Head of Institute) and Dr. Shine S R (Nodal Officer) jointly declaring on behalf of our institute is that all the information submitted are true and correct to best of our knowledge.

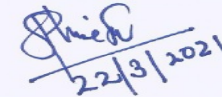
Thank you

The Head of Institute



Dr. V K Dadhwal
Head of the Institution,
Thiruvananthapuram, Kerala

Nodal officer



Dr. Shine S R
Nodal Officer,
Thiruvananthapuram, Kerala

Responsibility for accuracy and authenticity of data lies with the concerned institution.