



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

Institute Name: National Institute of Technology Uttarakhand [ARI-U-0616]

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

| Department / Center / Unit Name   | Type of Department /<br>Center / Unit | Mention the Stream /<br>Discipline / Sector of<br>focus  | Department / Center /<br>Unit Level | Program Type | Student / Benificiary<br>Strength (2019-20) | Academic Staff Strength (2019-20) | Non-academic Staff<br>Strength (2019-20) |
|---|---------------------------------------|--|-------------------------------------|--------------|---|-----------------------------------|--|
| Mechanical Engineering, Electrical Engineering, Electronics Engineering, Civil Engineering, Computer Science and Engineering, Chemistry, Physics, Mathematics, Humanities and Social Sciences | Academic Department with lab facility | Mechanical Engineering, Electrical Engineering, Civil Engineering, Civil Engineering, Computer Science & Engineering, Structural Engineering, Transportation Engineering, Artificial Intelligence, Computing System, Microelectronics and VLSI Design, Communication Systems, Power Electronics and Drives, Power System and Control ,Manufacturing Technology, Machine Design | UG / PG / PhD                       | Technical    | 892   | 72                                | 65                                       |
| Design Innovation Centre  | Research Unit / Park                  | Design and Innovation  | At all level                        | Technical    | 892   | 8                                 | 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   | Yes    | IIC Registration ID : IC201810432 |
| 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 in National Education Alliance of Technology (NEAT)  | No     | Not Required                      |

Details of Co-curricular events/programs related to Innovation, IPR and Entrepreneurship/Start-up Conducted by the HEI

| Srno | Name of<br>Program<br>(Full<br>Name) | Program<br>Theme | Program<br>Type | Program<br>Category | Organizin<br>g<br>Departm<br>ent /<br>Centre / | Program<br>Start<br>Date | Program<br>End Date | Program<br>Duration(i<br>n Days) | Program<br>Location | Internal<br>Participa<br>nts<br>(Student) | Internal<br>Participa<br>nts<br>(Faculty) | External<br>Participa<br>nts<br>(Student) | External<br>Participa<br>nts<br>(Faculty) | Total<br>Number<br>of<br>Participa<br>nts | Had institute spent expenses either from own resource/received fund to organise the program/activity/event? | Did any of the participants received any awards/recognition for startup / innovation ideas / research? |
|------|--------------------------------------|------------------|-----------------|---------------------|--|--------------------------|---------------------|----------------------------------|---------------------|---|---|---|---|---|---|--|
|------|--------------------------------------|------------------|-----------------|---------------------|--|--------------------------|---------------------|----------------------------------|---------------------|---|---|---|---|---|---|--|

Details of Co-curricular events/programs related to Innovation, IPR and Entrepreneurship/Start-up Conducted by the HEI

|   |  |                                  |                            | program                       | Student<br>Body<br>Name   |                            |                            |   |                   | ош от пру |   |     |    |     |  |   |
|---|--|----------------------------------|----------------------------|-------------------------------|---|----------------------------|----------------------------|---|-------------------|-----------|---|-----|----|-----|--|---|
| 1 | Internatio<br>nal<br>Conferen<br>ce on<br>"Innovativ<br>e<br>Engineeri<br>ng<br>Design<br>2020<br>(ICOIED-<br>2020)" | Innovatio<br>n                   | Conferen<br>ce             | Institute<br>Lead<br>Activity | Design<br>Innovatio<br>n Center,<br>NIT<br>Uttarakha<br>nd                                    | 18-01-20<br>20<br>00:00:00 | 20-01-20<br>20<br>00:00:00 | 3 | Outside<br>Campus | 8         | 2 | 55  | 10 | 75  | Total Expense Amount Incurred by Institute to Organise the Program (In Rupees) | Award / Position / Recognition Secured  Title of Innovation / Start-up Secured the Award / Recognition  Award/Recognition/Achieve ment Received for  Award / Received for Research Paper/Work |
| 2 | Business<br>Quiz   | Entrepre<br>neurship/<br>Startup | B-Plan<br>Competiti<br>ons | Student<br>Lead<br>Activity   | Innovatio<br>n and<br>Entrepre<br>neurship<br>Develop<br>ment<br>Cell, NIT<br>Uttarakha<br>nd | 29-09-20<br>19<br>00:00:00 | 29-09-20<br>19<br>00:00:00 | 1 | Within<br>Campus  | 144       | 0 | 294 | 0  | 438 | Total Expense Amount Incurred by Institute to Organise the Program (In Rupees) | Award / Position / Recognition / Secured  Title of Innovation / Start-up Secured the Award / Recognition  Award/Recognition/Achieve ment Received for   |
| 3 | Motivatio<br>nal talk<br>on<br>"Entrepre<br>neurship<br>skills"  | Entrepre<br>neurship/<br>Startup | Motivatio<br>nal speak     | Student<br>Lead<br>Activity   | Innovatio<br>n and<br>Entrepre<br>neurship<br>Develop<br>ment<br>Cell, NIT<br>Uttarakha<br>nd | 20-10-20<br>19<br>00:00:00 | 20-10-20<br>19<br>00:00:00 | 1 | Within<br>Campus  | 30        | 0 | 0   | 0  | 30  | No   | No  |
| 4 | Entrepre<br>neurship<br>skills by<br>Ishank<br>Joshi   | Entrepre<br>neurship/<br>Startup | Awarene<br>ss              | Student<br>Lead<br>Activity   | Innovatio<br>n and<br>Entrepre<br>neurship<br>Develop<br>ment<br>Cell, NIT<br>Uttarakha<br>nd | 22-02-20<br>20<br>00:00:00 | 22-02-20<br>20<br>00:00:00 | 1 | Within<br>Campus  | 30        | 0 | 0   | 0  | 30  | No   | No  |

Details of Co-curricular events/programs related to Innovation, IPR and Entrepreneurship/Start-up Conducted by the HEI

|   | 113 01 00-  |                |                            | p 9. u                        |   |                            |                            |   | ор. от.          |    |    |   | , <b>,</b> |    |  |   |
|---|---|----------------|----------------------------|-------------------------------|---|----------------------------|----------------------------|---|------------------|----|----|---|------------|----|--|---|
| 5 | Institute<br>Level<br>Hackatho<br>n   | Innovatio<br>n | B-Plan<br>Competiti<br>ons | Student<br>Lead<br>Activity   | Innovatio<br>n and<br>Entrepre<br>neurship<br>Develop<br>ment<br>Cell, NIT<br>Uttarakha<br>nd | 28-02-20<br>20<br>00:00:00 | 28-02-20<br>20<br>00:00:00 | 1 | Within<br>Campus | 20 | 0  | 0 | 0          | 20 | No   | Award / Position / Recognition Secured  Title of Innovation / Start-up Secured the Award / Recognition  Award/Recognition/Achieve ment Received for |
| 6 | Five Days Worksho p on "Intellectu al Property Right and Technolo gy Transfer"        | IPR            | Worksho<br>p               | Institute<br>Lead<br>Activity | Research<br>and<br>Consulta<br>ncy<br>Section   | 11-05-20<br>19<br>00:00:00 | 15-05-20<br>19<br>00:00:00 | 5 | Within<br>Campus | 10 | 30 | 0 | 0          | 40 | Total Expense Amount Incurred by Institute to Organise the Program (In Rupees) | No  |
| 7 | Faculty Develop ment Program on "Importan ce of Intellectu al Property in Academi cs" | IPR            | Training                   | Institute<br>Lead<br>Activity | Research<br>and<br>Consulta<br>ncy<br>Section   | 25-11-20<br>19<br>00:00:00 | 26-11-20<br>19<br>00:00:00 | 2 | Within<br>Campus | 5  | 35 | 0 | 0          | 40 | Total Expense Amount Incurred by Institute to Organise the Program (In Rupees) | No  |

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<br>Program<br>(Full<br>Name) | Program<br>Theme                 | Program<br>Type            | Organizin<br>g Agency<br>/ Institute<br>Name                       | Organizin<br>g Agency<br>Type | Program<br>Start<br>Date   | Program<br>End Date        | Program<br>Duration(i<br>n Days) | Participa<br>nts<br>(Students<br>) | Participa<br>nts<br>(Faculty) | Total<br>Number<br>of<br>Participa<br>nts | Awards/R<br>ecognitio<br>ns/Achiev<br>ements | Award /<br>Position /<br>Recogniti<br>on<br>Secured | Title of Innovation / Start-up Secured the Award / Recognition | Had institute spent expenses either from own resource/ received fund towards sending delegation to participate / represent the activity /event? | Did any of the participants<br>received any awards/recognition<br>for startup / innovation ideas /<br>research |
|------|--------------------------------------|----------------------------------|----------------------------|--|-------------------------------|----------------------------|----------------------------|----------------------------------|------------------------------------|-------------------------------|---|--|---|--|---|--|
| 1    | upStart                              | Entrepre<br>neurship/<br>Startup | B-Plan<br>Competiti<br>ons | IIT<br>Kanpur  | Educatio<br>nal<br>Institute  | 30-08-20<br>19<br>00:00:00 | 31-08-20<br>19<br>00:00:00 | 2                                | 2                                  | 0                             | 2   | No   |   |  | No  | No   |
| 2    | Makeath<br>on 2k20                   | Innovatio<br>n                   | B-Plan<br>Competiti<br>ons | Thapar<br>Institute<br>of<br>Engineeri<br>ng and<br>Technolo<br>gy | Educatio<br>nal<br>Institute  | 22-02-20<br>20<br>00:00:00 | 23-02-20<br>20<br>00:00:00 | 2                                | 3                                  | 0                             | 3   | No   | -1  |  | No  | No   |

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

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|---|--|----------------------------------|----------------------------|---|--|----------------------------|----------------------------|---|---|---|---|-----|-------------------|--|---|---|
| 3 | Shell<br>Eco-<br>Marathon<br>India<br>2019 | Innovatio<br>n                   | Innovatio<br>n Contest     | Shell<br>Technolo<br>gy Centre  | Corporat<br>e /<br>Industry<br>Associati<br>on | 19-11-20<br>19<br>00:00:00 | 22-11-20<br>19<br>00:00:00 | 4 | 9 | 0 | 9 | No  |                   |  | TotalTotal 389238 Expense Amount Incurred by Institute? (In Rupees) | No  |
| 4 | Hero E-<br>bike<br>Challeng<br>e 2020      | Innovatio<br>n                   | Innovatio<br>n Contest     | Imperial<br>Society<br>of<br>Innovativ<br>e<br>Engineer<br>s India<br>and Hero<br>Electic | Corporat<br>e /<br>Industry<br>Associati<br>on | 27-02-20<br>20<br>00:00:00 | 01-03-20<br>20<br>00:00:00 | 4 | 6 | 1 | 7 | No  |                   |  | TotalTotal Expense Amount Incurred by Institute? (In Rupees)        | No  |
| 5 | NIT<br>Conclave<br>9th<br>Edition<br>2019  | Entrepre<br>neurship/<br>Startup | B-Plan<br>Competiti<br>ons | NIT<br>Rourkela   | Educatio<br>nal<br>Institute                   | 23-08-20<br>19<br>00:00:00 | 25-08-20<br>19<br>00:00:00 | 3 | 5 | 0 | 5 | Yes | First<br>Position | Built a<br>project in<br>under 24<br>hours for<br>solving a<br>real world<br>problem | No  | Award / Position / Recognition / Recognition / Secured  Title of Innovation / Start-up Secured the Award / Recognition  Award/Recognition/Achieve ment Received for |

List the Academic Programs on Innovation, IPR and Entrepreneurship Development Offered During the Academic Period (2019-20)

No Data Flled!

LiList the Employment Generation Skill Development Programs Organized by the HEI on Innovation, IPR and Entrepreneurship Development During the Academic Period (2019-20)

No Data Flled!

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 Flled!

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<br>Available at the Club | Student Club<br>with Access to<br>Other I&E<br>Facilities at the<br>HEI | No of<br>Programs/Activiti<br>es Organized by<br>the Student Club<br>During the AY<br>2019-20 | Student Club<br>Team Lead<br>Name | Student Club Team<br>Lead Email | Student Club Team<br>Lead Phone |  |
|------|---|-----------------|-----------------------|---|---|---|-----------------------------------|---------------------------------|---------------------------------|--|
| 1    | Innovation and Entrepreneurship<br>Development Cell NIT Uttarakhand | Innovation Club | 2019                  | 3D Printing                                 | IPR<br>Cell/Technology<br>Transfer Centre                               | 5   | Mr. Mayank<br>Rajpurohit          | BT15EEE031@nituk.a<br>c.in      | 9897379701                      |  |

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 Filed!

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

No Data Filed!

List the Incubation Facilities at the HEI (>= 1500 Sq. Ft. Floor Area)

No Data Flled!

List the Innovation Park/Research Park Facilities at the HEI (>= 5000 Sq. Ft. Floor Area)

No Data Flled!

List the IPR Cell/Technology Transfer Centre Facilities at the HEI

|      | i it com, recimiency                                       | ,                        |  |  |   |  |  |   |   |
|------|--|--------------------------|--|--|---|--|--|---|---|
| Srno | Name of IPR<br>Cell/Technology<br>Transfer Centre Facility | Year of<br>Establishment | IPR Cell/Technology Transfer Centre with Access to Other I&E Facilities at the HEI | Name of the<br>Funding<br>Schemes<br>Available with<br>IPR<br>Cell/Technology<br>Transfer Centre,<br>if any (Optional) | Facility Details  | Total Nos of<br>Dedicated<br>Executive/Manag<br>ement team<br>Strength<br>Engaged at the<br>Facility | Had the IPR Cell/Technology<br>Transfer Centre Provided any<br>Funding Support for<br>Idea/Prototype/Innovation<br>Development and<br>implementation during the<br>Financial Year 2019-20? | Had institute Generated Income either from Services Offered by IPR Cell/Technology Transfer Centre? | Had the IPR Cell/Technology<br>Transfer Centre Provided any<br>Funding Support for<br>Idea/Prototype/Innovation/Start<br>up/Venture Development and<br>implementation during the<br>Financial Year 2019-20? |
| 1    | IPR Cell   | 2019                     | Student Clubs  |  | Facility<br>Incharge<br>Name  Dr. Vikas Kuksh al                    | 02   | No   | No  | No  |
|      |  |                          |  |  | Facility<br>Incharge<br>Email vikask<br>ukshal<br>@ nituk<br>.ac.in |  |  |   |   |
|      |  |                          |  |  | Facility 96347<br>Incharge Phone 96332                              |  |  |   |   |

Provide detail list of Faculties as Mentor to help Ideas/Innovations/Startups

No Data Flled!

Provide detail list of External Experts/Agencies engaged as Mentor to help Ideas/Innovations/Startups

No Data Flled!

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

No Data Flled!

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

No Data Flled!

List all the Collaborations with External Agencies and Co-Creation of I&E Activities by the HEI

No Data Flled!

| List the IP | Ps Filed/Published/Grante  | u (Copyright & Designs                  | Only) by the HEI as an Applicant / Co-                               | -applicant / Co-o     | WIICI  |   |   |   |
|-------------|--|---|--|-----------------------|--|---|---|---|
| Srno        | Title/Name of IP(Copyright &<br>Designs Only)  | Type of IP(Copyright & Designs<br>Only) | IP(Copyright & Designs Only) Registration Number of Copyright/Design | Application Level     | Date of<br>Copyright /<br>Design IP Filed/<br>Published<br>(Year, Month) | Copy of receipt /<br>application<br>screenshot<br>[PDF or Image | Current Status of<br>IP(Copyright &<br>Designs Only) as on<br>31st March 2020 | Has this IP(Copyright<br>& Designs Only) been<br>Commercialized/Tran<br>sferred to<br>Industry/Startup/Socie<br>ty? |
| 1           | Context awareness of a smart device through sensing transient and continuous signals   | IPRFiledPublished                       | 20190227096  | International         | 2019 - 07  | Uploaded  | Granted   | No  |
|             |  |   | Department/Centre  | Name                  |  |   |   |   |
|             | Electronics Engineering  |   |  |                       |  |   |   |   |
| 2           | A hybrid iron sulfide impregnated anion exchanger (HISIIX) for selective removal of hexavalent chromium from contaminated water              | IPRFiledPublished                       | 201911024268   | National              | 2019 - 06  | Uploaded  | Filed   | No  |
|             |  |   | Department/Centre  | Name                  |  |   |   |   |
|             | Civil Engineeirng  |   |  |                       |  |   |   |   |
| 3           | A Solar heating apparatus  |   |  |                       |  |   |   |   |
|             | Trous meaning apparatus  | IPRFiledPublished                       | 201911037065   | National              | 2019 - 09  | Uploaded  | Filed   | No  |
|             |  | IPRFiledPublished                       | 201911037065  Department/Centre I                                    |                       | 2019 - 09  | Uploaded  | Filed   | No  |
|             | Mechanical Engineeinrg   | IPRFiledPublished                       |  |                       | 2019 - 09  | Uploaded  | Filed   | No  |
| 4           |  | IPRFiledPublished  IPRFiledPublished    |  |                       | 2019 - 09  | Uploaded  | Filed   | No  |
| 4           | Mechanical Engineeinrg  Method for generating a personalized classifier for human motion activities of a mobile or wearable device user with |   | Department/Centre  | Name<br>International |  |   |   |   |
| 4           | Mechanical Engineeinrg  Method for generating a personalized classifier for human motion activities of a mobile or wearable device user with |   | Department/Centre  | Name<br>International |  |   |   |   |

| 5 | CO(NO3)2 AUTOCATALYZED DECARBOXYLATION OF ITACONIC ACID LEADS TO THE FORMATION OF METHACRYLIC ACID AND CO(II)-MOFS: FLUORESCENT CO(II)-MOFS DETECT HG2+,FE3+ AND CU2+ LONS | IPRFiledPublished | 201811018132      | National | 2019 - 11 | Uploaded | Granted | No |
|---|--|-------------------|-------------------|----------|-----------|----------|---------|----|
|   |  |                   | Department/Centre | Name     |           |          |         |    |
|   | Chemistry  |                   |                   |          |           |          |         |    |

### List the IP (Patents only) Filed by the HEI as Applicant / Co-applicant / Co-owner

No Data Flled!

## List the IPs hold by the Innovation teams/Startups Incubated at the Pre-incubation/incubation Unit of the HEI

No Data Flled!

### List the IP Commercialized/Transferred Published & Granted to HEI as Co-applicant/Co-owner

No Data Flled!

### **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. Satish Kumar (Head of Institute) and Dr. Vikas Kukshal (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. Satish Kumar Head of the Institution,

Srinagar (Garhwal), Uttarakhand

Nodal officer

Dr. Vikas Kukshal

Nodal Officer,

Srinagar (Garhwal), Uttarakhand

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