



ARIIA

ATAL RANKING OF INSTITUTIONS ON INNOVATION ACHIEVEMENTS



MHRD
Ministry of Human
Resource Development
Government of India

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

Institute Name: Jawaharlal Nehru University [ARI-U-0109]

Awareness / Training / Programmes organized by the Institute

Total Annual Expenditure Incurred towards Organizing Awareness, Workshop, Seminars, Training programs etc. related to promote innovation, IPR and Entrepreneurship Development

Financial Year	Program Type	Name of Program	Program Theme	Program Duration	Program Conducted	Participants Details			Expenditure Incurred		
						Number of Internal Participants	Number of External Participants	Total Number of Participants	Institute Own / Internal Fund (in Rupees)	Sponsorship / External Fund	Total Expenditure Incurred
2016-17	Other Related Programs	Orientation Programme on Research	Entrepreneurship/ Startup	29-Sep-2016 to 29-Sep-2016 (1 Days)	Within Campus	200	0	200	20000.00	0.00	20000.00
2016-17	Workshops / Training / Seminars / Conferences	Utilizing Online Learning in Educational Institutions to improve Learning Outcomes	Entrepreneurship/ Startup	26-Dec-2016 to 26-Dec-2016 (1 Days)	Within Campus	100	0	100	15000.00	0.00	15000.00
2017-18	Awareness / Motivational Programs	JNU-Inter institutional Research Cluster Meeting	Entrepreneurship/ Startup	20-Jan-2017 to 20-Jan-2017 (1 Days)	Within Campus	25	0	25	8000.00	0.00	8000.00
2017-18	Workshops / Training / Seminars / Conferences	BIG Workshop	Entrepreneurship/ Startup	27-Jan-2017 to 27-Jan-2017 (1 Days)	Within Campus	50	0	50	5000.00	0.00	5000.00
2017-18	Other Related Programs	Orientation Session	Entrepreneurship/ Startup	30-Mar-2017 to 30-Mar-2017 (1 Days)	Within Campus	50	0	50	8000.00	0.00	8000.00
2017-18	Other Related Programs	Interaction meeting with prof. S Mittal	Entrepreneurship/ Startup	25-May-2017 to 25-May-2017 (1 Days)	Within Campus	25	0	25	3250.00	0.00	3250.00
2017-18	Other Related Programs	SYST Expert Committee	Entrepreneurship/ Startup	13-Jun-2017 to 14-Jun-2017 (2 Days)	Within Campus	40	0	40	535000.00	0.00	535000.00
2017-18	Workshops / Training / Seminars / Conferences	Genome Engineering for production of secondary Metabolites-A journey from research lab to start-up and strategies to convert knowledge into wealth	Entrepreneurship/ Startup	12-Jul-2017 to 12-Jul-2017 (1 Days)	Within Campus	200	0	200	5000.00	0.00	5000.00
2017-18	Workshops / Training / Seminars / Conferences	Workshop with FITT, IIT Delhi for BIG grants	Entrepreneurship/ Startup	20-Jul-2017 to 20-Jul-2017 (1 Days)	Within Campus	100	0	100	8000.00	0.00	8000.00

Awareness / Training / Programmes organized by the Institute

Total Annual Expenditure Incurred towards Organizing Awareness, Workshop, Seminars, Training programs etc. related to promote innovation, IPR and Entrepreneurship Development

2017-18	Other Related Programs	Patent Studio	Entrepreneurship/Startup	06-Sep-2017 to 06-Sep-2017 (1 Days)	Within Campus	50	0	50	4000.00	0.00	4000.00
2017-18	Awareness / Motivational Programs	JNU-Special Intrust Group	Entrepreneurship/Startup	17-Oct-2017 to 17-Oct-2017 (1 Days)	Within Campus	20	0	20	1000.00	0.00	1000.00
2017-18	Other Related Programs	Brainstromy Session	Entrepreneurship/Startup	07-Nov-2017 to 07-Nov-2017 (1 Days)	Within Campus	20	0	20	1000.00	0.00	1000.00
2017-18	Other Related Programs	Intraction Metting with Prof. Chandra Sen	Entrepreneurship/Startup	18-Dec-2017 to 18-Dec-2017 (1 Days)	Within Campus	50	0	50	2500.00	0.00	2500.00
2017-18	Other Related Programs	Intellectual Property Rights	IPR	19-Jan-2018 to 19-Jan-2018 (1 Days)	Within Campus	100	0	100	1000.00	0.00	1000.00
2017-18	Workshops / Training / Seminars / Conferences	Vigyan Manthan Series	Entrepreneurship/Startup	24-Jan-2018 to 24-Jan-2018 (1 Days)	Within Campus	150	0	150	8200.00	0.00	8200.00
2017-18	Other Related Programs	DST PAC for National Award in Science Communication	Entrepreneurship/Startup	01-Feb-2018 to 01-Feb-2018 (1 Days)	Within Campus	15	2	17	10000.00	0.00	10000.00
2017-18	Workshops / Training / Seminars / Conferences	Vigyan Manthan Series-2	Entrepreneurship/Startup	22-Feb-2018 to 22-Feb-2018 (1 Days)	Within Campus	100	0	100	8000.00	0.00	8000.00
2017-18	Awareness / Motivational Programs	National Science Day	Entrepreneurship/Startup	28-Feb-2018 to 28-Feb-2018 (1 Days)	Within Campus	800	0	800	90000.00	0.00	90000.00
2017-18	Other Related Programs	International Womens Day	Entrepreneurship/Startup	08-Mar-2018 to 08-Mar-2018 (1 Days)	Within Campus	250	0	250	100000.00	0.00	100000.00
2017-18	Awareness / Motivational Programs	Brainstorming Sessions for Ganga Missions	Entrepreneurship/Startup	14-Mar-2018 to 14-Mar-2018 (1 Days)	Within Campus	100	0	100	10000.00	0.00	10000.00
2017-18	Workshops / Training / Seminars / Conferences	Vigyan Manthan Series-3	Entrepreneurship/Startup	22-Mar-2018 to 22-Mar-2018 (1 Days)	Within Campus	100	0	100	10000.00	0.00	10000.00

Institute's Participation in Events/ Programmes organized by the External Agencies

Total Annual Expenditure Incurred towards Supporting Students and Faculties to Participate/Present in National and International Level Innovation and Start-up Events/Competitions/Hackathons etc.

Not Applicable!**Pre-Incubation and Incubation facilities exist in-campus**

Total Annual Expenditure Incurred towards Creation of Pre-Incubation and Incubation Facilities in Campus

Not Applicable!

Fund supported to convert ideas to Innovations & Start-ups

Total Annual Fund Supported towards Conversion of Ideas to Innovative Solutions and Start-ups at the Institute Level

Not Applicable!**Intellectual Properties Filed**

Total Annual Expenditure Spent towards Patent filing of Innovative Technologies with Institute having Ownership

Financial Year	Title of Patent	Patent Application No	Inventors Type	Type of Patent Application Filed	Current Status (as of 31st March 2018)	Amount Spent towards Patent Filing (in Rupees)		
						Institution Own Fund	Sponsorship / Grant Fund	Total Amount Spent towards Patent Filing (in Rupees)
2015-16	Broad spectrum antibacterial activity of noval bisbenzimidazole targeting topoisomerase Ia and the synergistic composition of bisbenzimidazole with efflux pump inhibitors against pathogenic bacteria.	201611008163	Student and Faculty	National	Application Published	81260.00	0.00	81260.00
2015-16	A NOVEL AND SELECTIVE RADIOSENSITIZING AGENT FOR PROVIDING MECHANISM - BASED RADIOSENSITIZING EFFECTS IN PROSTATE CANCER	2889/DEL/2015	Student and Faculty	National	Application Published	50182.00	0.00	50182.00
2015-16	A METHOD FOR SILENCING THE EXPRESSION OF A MEMBER OF TWO COMPONENT SYSTEM-OSPRRL TO INCREASE SALINITY STRESS TOLERANCE IN RICE	3016/DEL/2015	Student and Faculty	National	Application Published	82764.00	0.00	82764.00
2015-16	DEVELOPMENT OF CHILLI LEAF CURL VIRUS DNA-BASED CHIMERIC CONSTRUCT FOR EFFICIENT PLANT INOCULATION	2619/DEL/2015	Student and Faculty	National	Application Published	45395.00	0.00	45395.00
2015-16	CHILLI LEAF CURL VIRUS BASED VECTOR FOR TISSUE SPECIFIC(PHLOEM) SILENCING OF ENDOGENOUS GENE AND OVER-EXPRESSION OF FOREIGN GENES	2620/DEL/2015	Student and Faculty	National	Application Published	45395.00	0.00	45395.00
2015-16	Self-healing and recovery of Gelatin-Ionic Liquid, Ionogel.	1990/DEL/2015	Student and Faculty	National	Application Published	42385.00	0.00	42385.00
2015-16	A novel rice mutant having multiple abiotic tolerance.	4025/DEL/2015	Student and Faculty	National	Application Published	78805.00	0.00	78805.00
2015-16	ACRIFLAVIN (ACF) AS AN ANTIMALARIAL AGENT.	2630/DEL/2012	Student and Faculty	National	Application under Examination	64210.00	0.00	64210.00

Intellectual Properties Filed

Total Annual Expenditure Spent towards Patent filing of Innovative Technologies with Institute having Ownership

2015-16	Broad spectrum antibacterial activity of noval bisbenzimidazole targeting topoisomerase Ia and the synergistic composition of bisbenzimidazole with efflux pump inhibitors against pathogenic bacteria.	201611002627	Student and Faculty	National	Application Published	181650.00	0.00	181650.00
2016-17	A Pharmaceutical composition of vaccine against rabies which comprises of DNA vaccine based on Glycoprotein gene of rabies virus conjugated to LAMP-I signal sequence of the C-Terminus and an adjuvant and Method of its preparation thereof.	1449/DEL/2010	Student and Faculty	National	Application Published	20400.00	0.00	20400.00
2016-17	A novel bispecific monoclonal antibody capable of cross reacting with lethal factor and edema factor and neutralizing edema toxin as well as lethal toxin of bacillus anthracis.	714/DEL/2010	Student and Faculty	National	Provisional/Complete Specification	201227.00	0.00	201227.00
2016-17	DMA, a Bis - Benzimidazole, confers radioprotection to the intestine via AKTNFKB dual pathway activation	US10016515	Student and Faculty	International	Provisional/Complete Specification	1667661.00	0.00	1667661.00
2016-17	Nanoclay and ionic liquid based electrochemical sensor for ascorbic acid, citric acid and cholesterol detection.	201611032667	Student and Faculty	National	Application under Examination	39626.00	0.00	39626.00
2016-17	Electrochemical Immunosensor for cytokeratin fragment-21-1 detection.	201611032666	Student and Faculty	National	Provisional/Complete Specification	39626.00	0.00	39626.00
2016-17	Hydrogen ion implanted enzyme free clay based cholesterol sensor	201611029865	Student and Faculty	National	Provisional/Complete Specification	151187.00	0.00	151187.00
2016-17	Biocompatible Clay Ionogel Based Non-Enzymatic Oxalic Acid Sensor	201611025920	Student and Faculty	National	Application under Examination	108358.00	0.00	108358.00
2016-17	A depth controlling belt arrangement for a soil working implement.	20161021005	Student and Faculty	National	Provisional/Complete Specification	33600.00	0.00	33600.00
2016-17	Modified P450 reductase with N-terminal detections and endoplasmic reticulum retention tag.	201617021006	Student and Faculty	National	Provisional/Complete Specification	33600.00	0.00	33600.00
2016-17	Powery cosmetic composition.	201617021007	Student and Faculty	National	Provisional/Complete Specification	33600.00	0.00	33600.00

Intellectual Properties Filed

Total Annual Expenditure Spent towards Patent filing of Innovative Technologies with Institute having Ownership

2016-17	High-power switch with current limiter.	201617021008	Student and Faculty	National	Provisional/Complete Specification	33600.00	0.00	33600.00
2017-18	A Pharmaceutical composition of vaccine against rabies, which comprises of DNA vaccine based on Glycoprotein gene of rabies virus conjugated to lamp-1 signal sequence at the C-Terminus and an Adjuvant and Method of its Preparation.	1449/DEL/2008	Student and Faculty	National	Provisional/Complete Specification	193448.00	0.00	193448.00
2017-18	A system and method for production of biofuel from carbon dioxide concentrating endolithic bacterium serratia sp. ISTB104	2147/DEL/2014	Student and Faculty	National	Application Published	31800.00	0.00	31800.00
2017-18	Enzyme-free strip sensor for estimation of ascorbic acid.	3741/DEL/2014	Student and Faculty	National	Provisional/Complete Specification	31800.00	0.00	31800.00
2017-18	Efficient and selective nhaloacylation of amino alcohols.	201711040249	Student and Faculty	National	Provisional/Complete Specification	176000.00	0.00	176000.00
2017-18	Method to enhancing regeneration frequency of brassica species and medium therefor.	1682/DEL/2008	Student and Faculty	National	Provisional/Complete Specification	80108.00	0.00	80108.00
2017-18	A novel adjuvant	201711036999	Student and Faculty	National	Provisional/Complete Specification	18600.00	0.00	18600.00
2017-18	A novel anthrax vaccine	201711036889	Student and Faculty	National	Provisional/Complete Specification	33600.00	0.00	33600.00
2017-18	A novel electrochemical sensing platform for detecting of biological elements.	201711038137	Student and Faculty	National	Provisional/Complete Specification	97200.00	0.00	97200.00
2017-18	An electrochemical sensing platform for detection of IL8 using electrochemical sensing platform	201711038138	Student and Faculty	National	Provisional/Complete Specification	79600.00	0.00	79600.00
2017-18	An improved rice mutant capable of producing rice line having improved growth rate, yield and crop, and a method of producing the same.	3387/DEL/2013	Student and Faculty	National	Provisional/Complete Specification	9750.00	0.00	9750.00
2017-18	An improved rice having increased lysine contents, and method of producing the same.	3173/DEL/2014	Student and Faculty	National	Provisional/Complete Specification	17750.00	0.00	17750.00
2017-18	A system and method for production of biofuel from CO2 concentrating bacterial amended in municipal sludge.	201711017261	Student and Faculty	National	Provisional/Complete Specification	57226.00	0.00	57226.00

Intellectual Properties Filed

Total Annual Expenditure Spent towards Patent filing of Innovative Technologies with Institute having Ownership

2017-18	Bio-Engineered Mesoporous Dialysis Nano Beads for the specific removal of excess body toxins, water and ions from kidney failure.	201711020373	Student and Faculty	National	Provisional/Complete Specification	71757.00	0.00	71757.00
2017-18	Generation and characterization of hybridoma clones producing monoclonal antibodies against specific.	201711016149	Student and Faculty	National	Provisional/Complete Specification	112582.00	0.00	112582.00
2017-18	Copper-Indium-Gallium Selenium nanocrystal for detection of water in deuterium oxide at ppm level.	201611043211	Student and Faculty	National	Provisional/Complete Specification	27012.00	0.00	27012.00

Innovations Commercialized and IP Licensed

Total Annual Expenditure Incurred and Revenue Generated from IP Commercialization and Licensing at Institute Level (Excluding Consultancy and Testing Services)

Not Applicable!**Grant / Fund Generated / Received by Institute to support Innovation & Start-up**

Total Annual Grant / Fund Generated / Received / Mobilized from Govt., Non Govt. and Private Agencies towards Creation of Pre-Incubation and Incubation Infrastructure and Facilities in Campus

Financial Year of Fund Generated	Grant Agency Type	Grant Agency Name	Total Grant Period	Total Grant Allocated Amount (in Rupees)	Total Grant Received Amount (in Rupees) (as of 31st March 2018)	Purpose of Grant Utilization (Multiple options can be selected)	Purpose of Grant Utilization (Other)
2015-16	Government	UGC	05	10000000.00	5000000.00	Training and Capacity Development on Innovation/Startup	---
2017-18	Government	UGC	05	0.00	0.00	Other	---

Venture Fund / Investment mobilized to support Innovation & Start-up

Total Angel/Venture Fund Mobilized Annually towards Investment Commitment/Support Innovators/Start-ups incubated at Institute

Not Applicable!**Revenue Generated from Incubation Services offered by the Institute**

Total Revenue Generated Annually from the Incubation Services offered and Equity/Share hold in Incubatees/Spinoffs

Not Applicable!**Infrastructures & Facilities to Support Innovations and Start-ups**

Advanced Infrastructure

Advanced Lab Infrastructure/Facilities available to Support Innovation and Start-Up

Yes

If Yes, Type of Lab Infrastructures / Facilities Available (Multiple Options can be Selected)

Infrastructures & Facilities to Support Innovations and Start-ups**Advanced Infrastructure**

Supercomputing Centre, Fabrication Lab, Automation Lab, Bio-Design Centre

List Maximum Five Advanced Labs Infrastructures Available in your Campus

Name of the Centre	Sector Focus of Centre (Separate Multiple Sectors with Comma ",")	Name of the Centre In charge	Email of the Centre In charge
Advanced Instrumentation Research Facility	Biotechnology	Prof. Dinesh Mohan	dmohan@mail.jnu.ac.in
Central Instrumental Facilities in Various Schools	Life Sciences, Molecular Medicine, Biotechnology, Nano Sciences, Physical Sciences, Environmental Sc	CIF -Incharge	rupesh@mail.jnu.ac.in
School of Computational and Integrative Sciences	High Performance Computing	Prof. Shandar Ahmad	shandar@mail.jnu.ac.in
SLS-Central Laboratory Animal Resources	Experiments on Animals	Dr. Dinesh Kanwar Yadav	dkyadav@mail.jnu.ac.in
Bio Safety Level 3 Facility	Bio Safety Level 3 Culture Facility	Prof. Rupesh Chaturvedi	rupesh@mail.jnu.ac.in

Pre Incubation Centre Available in your Campus**Pre-Incubation Centre**

No

Type of Centre (Multiple options can be selected)**List Maximum Five Pre-Incubation Centre Available in your Campus**

Name of the Centre	Sector Focus of Centre (Separate Multiple Sectors with Comma ",")	Name of the Centre In charge	Email of the Centre In charge
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Incubation Unit/Acceleration Centre/ Research Park / STEP**Incubation Unit/Acceleration Centre/ Research Park / STEP Available in your Campus**

No

Type of Centre (Multiple options can be selected)**List Maximum Five Pre-Incubation Centre Available in your Campus**

Name of the Centre	Sector Focus of Centre (Separate Multiple Sectors with Comma ",")	Name of the Centre In charge	Email of the Centre In charge
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Student Projects recognized at National / International Level

No of Innovative Student Projects Recognized Nationally/Internationally with Prestigious renounced Agencies/Awards

Not Applicable!

Innovations to Startups

No of Successful Conversion of Innovations initiated by Students/Alumni/Faculties converted to Enterprise/Start-ups made at Institute

Not Applicable!**Co-Incubation Partnership**

Co-incubation Partnership made with other Institutions either to offer incubation support (or) to receive incubation support

Not Applicable!**Courses on Innovation, IPR and Entrepreneurship Development**

Short Term Certificate Courses, Regular Academic Programs and Courses offered at Institute on Innovation, IPR and Entrepreneurship Development for Students, Faculties and Start-ups

Not Applicable!**Faculty with Entrepreneurial Experience**

Regular Faculties Engaged in Teaching with Experience in Innovation Design, IPR, Business Modelling, Entrepreneurship Development, Start-up, etc.

Not Applicable!**Innovation in Governance**

Best Innovative Solutions Developed In-house for Improving Governance of Your Institution

Financial Year	Categories	Title of the Innovation	Brief About Solutions / Approaches Developed and Deployed in Your Institute	Total Project Amount (in Rupees)	Revenue Generated (in Rupees)	Impact created (No. of Direct Beneficiaries/Users)
2016-17	Knowledge Management	Knowledge Management	KMS of eOffice to manage large volumes of documents which can be Policies,Forms,Acts,Regulations,Circulars, GuidelinesandStandardsandManuals, tohave a single repository of documentsfrom where all the department ministry users can access the information.It enablesusersto createandmanage electronicdocuments thatcan be viewed,searched andshared. It is capable of keeping track of the different versions modified by differentusers,contains a dynamicworkflow to keep document in various stages.LMS eLearning andCMS software, usuallyimplemented as Web application,for creating and managing the content. It is used to manage andcontrol large,dynamic collectionof we material in text, images, animation,audio and video.It facilitates content creation,content control,editing,andmany essential Webmaintenance functions.The mainobjectives will be-toshare common working documents across the JNU community, to accumulate content in a singleplatform,toprovide openaccess to institutional research output by self archivingit, to haveaccess to all important video lecturesdelivered by visitingorJNUScholars.CMS-JNUwebsite is based on the CMS Drupal, is scalable,openplatform for web content management and digital experiences.Drupal provides deepcapabilities andendless flexibilityonthe web.All the Webcontent is hostedon this platform.e Resources- Library maintain lotsof e Resources.	0.00	0.00	11000

Innovation in Governance

Best Innovative Solutions Developed In-house for Improving Governance of Your Institution

2017-18	Waste Management	Waste Management	<p>JNU has an evergreen campus. The University is committed to environmental and forest conservation. It has an Environmental Task Force (ETF) which helps in keeping JNU campus green. Under Green Practices, the university is encouraging solar power and other alternate resources. The university is also promoting rain water harvesting and plantation etc. The University follows the practices to clear the e-waste. It takes special interest in the storage of rain water. The faculty members of SES are involved in research related to this objective. To reduce the energy consumption in the campus, engineering team along with some faculty members have under taken initiatives to use the energy in a conservative manner. SES faculty members are doing many such research projects on environment quality, and the university gets their feedbacks suggestions individually or through the campus development committee with an aim to reduce the pollution levels in the campus. JNU Health centre very frequently and proactively through the various committees issues the health safety advisories, seeking awareness of JNU community as and when needed. Solar panels are installed in many of the hostels of the university and lights of the campus in many locations run on the solar systems.</p>	0.00	0.00	20000
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Responsibility for accuracy and authenticity of data lies with the concerned institution.