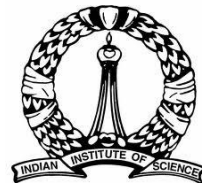




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Indian Institute of Science (IISc)

Bengaluru – 560 012, India



Date: December 21, 2017

Statement of Purpose (SOP) for Winter Youth Assembly at the United Nations, New York City, USA.

On 25 September 2015, the United Nations General Assembly unanimously adopted the Resolution 70/1, “Transforming our World with the 2030 Agenda for Sustainable Development”. This historic document lays out the 17 Sustainable Development Goals (SDGs), which aim to mobilize global efforts to end poverty, foster peace, safeguard the rights and dignity of all people, and protect the planet. The new goals are unique in that, they call for action by all countries; poor, rich and middle-income, to promote prosperity while protecting the planet. As the former Secretary General Ban Ki Moon famously remarked, “There is no plan B because there is no planet B”. Hence, we need to ACT and ACT IMMEDIATELY.

The Youth Assembly aims to engage youth as beneficiaries, stakeholders, and leaders in this global movement. The 21st session of the Youth Assembly, to be held at the UN headquarters in New York from 14th to 16th February 2018, is being organized on the theme of “Innovation and Collaboration for a Sustainable World” with particular focus on the SDGs 6, 7, 11, 12, 15 (6: Clean water and sanitation, 7: Affordable and clean energy, 11: Sustainable cities and communities, 12: Responsible consumption and production, 15: Life on land). With an emphasis on building intergenerational and cross-sector partnerships, the conference will bring together delegates from over 100 countries, in conversation with representatives from the public sector, industry, academia, and civil society. In India, we have more than 60% of the population under 30 years, forming majority of today's workforce. The students at IISc have always been sensitive and conscientious individuals, trying to address similar issues with their everyday research. This year 10 students have been selected from IISc to represent India at such a prestigious global platform in contrast with only one student last year. This itself points at the potential of IISc students and the strong appreciation for the last year's performance.

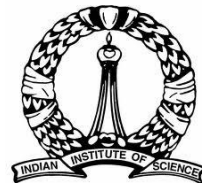
The group of students is very dynamic with a wide range of research interests that are in alignment with SDGs 2030. Mr. Advait works in the domain of clean energy and has successfully developed an innovative solar thermal energy storage system which can supply clean and affordable energy during the nights and even winters. Mr. Akhil Joseph's research is primarily focused on renewable energy integration to modern network infrastructures and modeling of market framework for peer-to-peer energy trade based on emerging technologies like IoT. Mr. Ashish Chopra is trying to understand the effect of a total of 28 factors like percentage of population having access to clean water and sanitation, water needs for environment etc. to develop an index in order to benchmark the water sector performance of different states in India. Mr. Gaurav Tikas works in the domain of 'Technology and Innovation Management' with a special focus on improving 'innovation capability' of R&D teams operating in Technology-driven organizations. Ms Manju has decided to focus on 'Life on Land' and she



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intends to work on Miyawaki method for creating forests and mangrove conservation projects in Kerala. Mr. Naveen B Ramu works on sustainable transportation and service quality. He is also working on youth empowerment and youth engagement in decision making platform for sustainable governance and impact. He is also the 'Campus Ambassador' for Winter Youth Assembly, 2018 from India and is the Chairman of Students' Council, IISc. Ms Navjot Kaur works on Tuberculosis detection, aiming at developing paper-based point-of-care compatible diagnostics. Ms Niranjana Ambadi, is highly motivated to drive home effective measures to ensure gender equality in classrooms and in particular focuses on enabling smart learning for girls in nearby orphanages. Mr. Rishabh is working on solar panel recyclability without using thermal power and reliability of solar panel in Indian grounds. Mr Shaunak Handa is working towards providing quality education to everyone. In the past he has worked with NGO's like Children's education trust- New Delhi, Inara, Scholars for Change campaign - IIM A creating educational videos for primary classes in English and Hindi thus promoting quality education for all using the digital means.

We feel that this is a great opportunity for us to represent IISc and India at a prestigious international platform. We can be representatives of the research being done at IISc and how it contributes to the SDGs goals, which can bring greater recognition to our institute. The platform can be aptly used by us to discuss and disseminate information regarding the research and academic environment of the institute. We might also get opportunities to present our work, at a platform where real world leaders might be looking at it very closely. Further, the Youth Assembly with its strong presence of technology collaborators provides an excellent platform to foster ways to bring theory into practice.

The conference has a registration fee of \$175 and the travel and accommodation is also to be taken care of by the participants. We are writing to you in this regard, to request for financial assistance that will help us to avail this significant opportunity. We sincerely request you to please consider our case and help us with arranging for stay in New York. This assistance will greatly help us to save some resources, interact with the IISc alumni in the USA, find a home away from home and grab a great opportunity to experience the global culture and showcase our research at a prestigious international platform. We promise to perform to the best of our abilities, both in formal and informal discussions and make the institute and the country proud.

Travel Schedule

Arrival to New York (JFK International Airport): February 10th, 2018

Youth Assembly, UN dates: February 14th to 16th, 2018

Departure from New York (JFK International Airport): February 18th, 2018

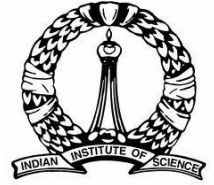
Number of Students from IISc: 10 students



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Participating student delegate details

Sl. No.	SR number	Name	Course	Department
1	06-15-00-10-12-14-1-11730	Advait Sathesababu	Ph.D	Interdisciplinary center for Energy Research (ICER), IISc
2	05-10-00-10-12-14-1-11749	Akhil Joseph	Ph.D	Dept. of Management Studies, IISc Bangalore
3	05-10-00-10-12-15-1-12648	Ashish Chopra	Ph.D	Dept. of Management Studies, IISc Bangalore
4	05-10-00-10-12-13-1-10595	Gaurav Dilip Tikas	Ph.D	Dept. of Management Studies, IISc Bangalore
5	04-02-04-10-42-16-1-13690	Manju Miniraj	M.Tech	Electronics and Communication Engineering Dept., IISc Bangalore
6	05-10-00-10-12-13-1-10629	Naveen B Ramu	Ph.D	Dept. of Management Studies, IISc Bangalore
7	05-04-00-10-12-16-1-13652	Navjot Kaur	Ph.D	Dept. of Chemical Engineering, IISc Bangalore
8	04-02-00-10-12-14-1-11617	Niranjana Ambadi	Ph.D	Department of Electrical Communication Engineering, IISc Bangalore
9	11-01-00-10-91-14-1-11971	Rishabh Batra	UG	Under Graduate Dept, IISc Bangalore
10	05-10-04-10-81-17-1-14693	Shaunak Handa	M.Mgt	Dept. of Management Studies, IISc Bangalore



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Individual student delegate directions and expected outcome from Winter Youth Assembly 2018 at the United Nations.

1. Naveen B Ramu

Ph.D. scholar, Dept. of Management Studies, Indian Institute of Science (IISc).

My research area is on sustainable transportation and service quality.

Expected outcome:

Youth Assembly at the United Nations is a unique platform having around 1500+ delegates from more than 100+ countries. It's a great opportunity to interact with young achievers, leaders, change makers and officials of international organizations. There is a real need for effective and efficient transportation planning for sustainable development in India. I am looking forward to getting the inputs from the sessions, interactions with concerned experts and organizations. This would help me in formulating and proposing the policy for sustainable transportation for India. Also, I'm working towards youth empowerment and engagement in decision-making platforms for inclusive and sustainable governance for the sustainable impact. I'm advocating on establishing Youth Parliament of India which helps in achieving the goal of inclusive and sustainable governance. Being the campus ambassador for youth assembly from India and taking 10 delegates from IISc to Youth Assembly is one of the steps towards youth empowerment. This global platform will boost our energies and motivation to be more proactive towards the achieving SDGs 2030 through cross-cultural understandings. This helps us to Think globally and act locally.

2. Manju M Raj

M.Tech in ECE Dept. of IISc Bangalore.

I have chosen SDG 15: "Life on land" as my area of interest for The Youth Assembly at the United Nations-2018.

Expected outcome:

Attending YA, I expect to get a global outlook on importance of SDGs and the difference we are capable of making. I can see nature being exploited, species being extincted and climate being changed. What I do not know is what and how can I do something about it. I hail from Kerala, which is known for its natural beauty and good weather. But land is being exploited beyond limits and we are witnessing the effects as natural disasters and climate change.

For example, Mangrove area in Kerala has reduced drastically over the years, with only 1,750 hectares remaining of an estimated historical 70,000 hectares.

Agricultural lands are being illegally filled, wildlife being hunted for leather and meat.

Unthoughtful use of plastic and pesticides also affects life around us.

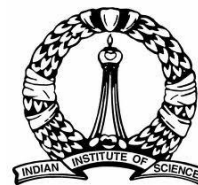
I would want to meet people with experience in tackling such issues and similar way of thinking. I've read about Miyawaki method to create forest and some organisations do such projects.



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Innovative ideas and technology along with collective effort of willing minds can still make a difference is what I hope.

3. Advait Satheesababu

Myself Advait Satheesababu. Currently I am pursuing my PhD from Interdisciplinary center for Energy Research (ICER), Indian Institute of Science and I have successfully developed an innovative solar thermal energy storage system which can supply clean and affordable energy during night.

Expected outcome:

Rather than just restricting my research knowledge within the premises of research lab or keep grabbing various journal publications to my account, I would like to make sure that the influence of the top notch energy related researches and inventions reaches at the grass root level. People have many wrong perceptions about the achievement of clean and affordable energy. Many think its beyond impossible. I am very confident that by getting familiar with energy related issues around the world and the necessary actions they have taken to tackle these issues itself is a huge leap towards the achievement towards this goal. Knowledge is the key. I wanted to inspire millions of young minds by sharing the output of the fruitful discussion from UN YA 2018. From 5 to 10 years from now, i see myself as a visionary who would take up similar issues for the betterment of the world.

The UN Youth Assembly offers one of the best opportunity to interact with similar minded people who are concerned about the various issues of humanity and the nature. The rigorous brainstorming sessions can surely get some solutions to these concerned issues. As a responsible human being, I wish to preserve the nature and its resources for the upcoming generations without sacrificing much on the development. I believe the exposure at Youth Assembly would enable me to become a concerned global citizen who can tackle these issues. I hope to be able to make better use of my research knowledge towards this goal. Let's work hand in hand in this noble cause.

4. Shaunak Handa

Master of Management with specialisation in business analytics. I aim to utilize the knowledge to acquire by this course to for finding solutions to the SDG 2030.

Expected outcome:

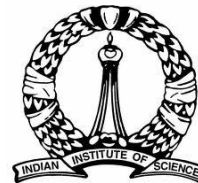
The world has shrunk to be on the Palm Top or even less. Today no one exists in a isolation. There is interdependence and any action has the bearing on each other. To make our existence meaningful and comfortable everyone needs to work and contribute for it. I was keenly exploring opportunities for first hand interaction with my peers in the other part of Globe. In India conditions here are very conducive to supplement my aspirations. To serve the needs of MY COUNTRY and more important its vast population, THIS EXPOSURE is going to become of utmost importance when I return after PARTICIPATING IN THIS SEMINAR. The Theme is INNOVATION + COLLABORATION FOR A SUSTAINABLE WORLD. In the summit there



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will be exposure to tackle global and contemporary issues with youth at the center of the discussions.

The conference will focus on poverty, education, and sustainable consumption and production while highlighting the interdependence and universality of the Sustainable Development Goals. Discussions will also include youth's role in policy-making and the refugee crisis. All this is very meaningful to India as we are undergoing facing these situations. NATIONAL CAPACITY BUILDING would only be possible when we get exposed to discussions and understand the various issues and solutions being tried in other parts of the Globe. Achieving the 2030 Agenda and the SDGs in our country will depend on collaborative partnerships between governments and non-State actors at all levels, and at all stages of the programmatic cycle-planning, consultations, implementation, monitoring and reviews. We can contribute only when we are aware and have exposure to these events.

5. Ashish Chopra

Ph.D. student in the Department of Management Studies. My area of research is related to the demand management of water.

Expected outcome:

The first goal of my study is to develop a multidimensional index to benchmark the water sector performance of different states in India. Total 28 variables which include factors like physical availability of water, investment in water management, environmental water needs and percentage of population having access to clean water and sanitation which are directly related to sustainable development goals (SDGs) are used in order to develop an index. Providing access to clean water and sanitation to the world's population is one of the 17 SDGs. In our research, we are trying to understand the importance of this factor on the water sector performance. How other factors like investment, the economics of water, politics etc affect this factor in different states of India.

I am hoping that participation in the winter youth assembly at UN will give me the chance to learn more from the people who are implementing their research and idea on the field to make the life of millions of people easy. This understanding will be helpful in order to add more factors which are important in order to manage this scarce resource effectively.

6. Niranjana Ambadi

Student, IISc Bangalore

Research interests: Network coding, matroid theory

Goal at the UN YA 2018: To build an effective model with public private partnership in order to enable smart learning at nearby orphanages for girl children and seek ways for large scale promotion of the same.

7. Akhil Joseph

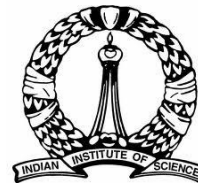
Research Scholar, Department of Management Studies at IISc Bangalore



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Akhil's primary research focus is to design and develop new energy utilization philosophies, by devising policy measures for development of Energy Internet for India with emerging technologies like Internet of Things (IoT).

Expected outcome:

The sustainable development goals, particularly goal 7, is closely associated with his research area. Akhil's take away from the conference that might catalyse his research process would be; (1) Interactions with experts and like-minded people would assist him to model economic operation of efficient and resilient energy systems, (2) Innovative ideas for formulation of appropriate policy regimes for India, (3) Comprehension on the sustainable energy system models and business practices prevalent in the developing countries which are successfully contributed towards providing energy access to poor, can be applied to addressing his research questions, and (4) The awareness on the present global scenario on providing renewable energy access to households of the developing countries where the penetration of electricity systems is low, would help him to reshape the present electrification strategies.

8. Navjot Kaur

Ph.D. Student, Department of Chemical Engineering, IISc, Bangalore

I am currently working in the domain of healthcare with particular focus on technology development for point-of-care-diagnostics.

Expected outcome:

Interacting with the world leaders and youth participants at the Youth Assembly will help me become more aware of the ground realities in countries all over the globe. As healthcare is one of the basic challenges the world is facing, many other participants will be working in this field and have their own research ideas and experiences. Being part of such an enthusiastic and dedicated gathering will help me broaden the horizons of my thought process. I will be looking for opportunities to discuss the work I am doing at IISc and how the institute supports India in directly addressing the SDGs 2030. I would also like to explore the possible career options with respect to policy making and implementation that are today available to PhD holders, because having a deep understanding of the issues that we address through our PhDs and training to approach and solve them, makes us very well suited for such positions.

9. Rishabh Batra

Under-Graduate Student at IISc Bangalore

Expected outcome:

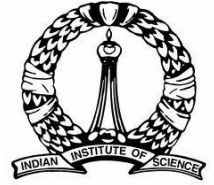
I believe that being a Youth Assembly delegate would provide me an opportunity to express and share my ideas with the world and also engage with other people who share the same vision of



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providing Renewable Energy and Sustainable Development. That would help me to improve upon my project and take account the ideas that I get from people all across the globe.

10. Gaurav Tikas

Research Scholar, Department of Management Studies at IISc Bangalore

I am currently pursuing my Ph.D. in Technology and Innovation Management with a special focus on building 'innovation capabilities' in R&D teams for improved innovation performance.

Expected Outcome:

A global platform like United Nations will allow me to understand the perspectives of young minds from across the world and connect with them. Creating a Global network of young and aspiring individuals will allow me to share ideas and knowledge with them. This can benefit me in creating 'virtual teams' that can work together to solve global as well as local problems and suggestions can from any part of the world. Majorly, this will help in efficient utilization of resources as we won't need to 'reinvent the wheel'. From this conference I wish to create a network of 'Life-long' friendships with people from countries around the world, so that we can help each other to make this world a 'better place to live' for everyone, irrespective of their nationality.

On behalf of 10 students, Thanking you!

Naveen B R,
Chairman,
Students' Council,
IISc, Bengaluru.

Email: scchairman@tejas.serc.iisc.ernet.in

Webpage: <http://scouncil.iisc.ac.in/>

Mob: +91-8197898209