

# 12<sup>TH</sup> CONVOCATION 14<sup>TH</sup> NOVEMBER, 2019

# ABOUT TERI SAS

The genesis of TERI SAS is rooted in the comprehensive research, consultancy, and outreach activities of TERI. The relationship with TERI has propelled and influenced the evolution of the University's academic units. In 1999, the University was granted "Deemed to be University" status by the University Grants Commission and notified by the Ministry of Human Resources Development, Department of Education, Government of India. Earlier Known as 'TERI University', the institution changed its name to 'TERI School of Advanced Studies' (TERI SAS) with effect from 29 Nov 2017.

With a mission to create knowledge and capacity in various areas of sustainable development, the TERI SAS exposes its students to a variety of subjects, tools and methodologies in an interdisciplinary mode.

Accredited with the National Assessment and Accreditation Council of India (NAAC), the University has received accolades for incorporating new and innovative elements in education. All technical programmes of the University are approved by the AICTE. About 174 students are currently enrolled in the doctoral programmes, and 469 in the various master's programmes.

In keeping with its global outlook, the TERI SAS has academic collaborations with select foreign universities, which provide for joint research and curriculum development as well as faculty and student exchanges. The University attracts students from all over the country and a fair number of international students.

#### At present, TERI SAS offers the following programmes:

#### Ph D

M Sc (Environmental Studies and Resource Management)

M Sc (Geoinformatics)

M Sc (Climate Science and Policy)

M Sc (Plant Biotechnology)

M Sc (Economics)

M Sc (Water Science and Governance)

MA (Public Policy & Sustainable Development)

MA (Sustainable Development Practice)

MBA (Infrastructure)

MBA (Business Sustainability)

M Tech (Renewable Energy Engineering and Management)

M Tech (Urban Development and Management)

M Tech (Water Resource Engineering and Management)

LLM (Environment & Natural Resources Law/ Infrastructure & Business Law)

The doctoral programmes and research centre around seven basic themes: Bioresources & Biotechnology, Business sustainability, Energy and Environment, Natural Resources Management, Policy Studies, Water Science & Governance and Legal Studies.

## Programme for Convocation 14 Nov 2019

4:45 pm	All Guests / Invitees to be seated
4:50 pm	Arrival of Chief Guest - Received by Chancellor and Vice Chancellor: proceed to Seminar Hall
4:55 pm	Supply of robes to Chief Guest
5: 00 pm	Compere welcomes guests and announces Graduand Procession
5:03 pm	Graduands are seated
5:04 pm	Academic Procession forms – members of the procession are introduced to Chief Guest
5:07 pm	Academic Procession moves
5:10 pm	Academic Procession reaches entrance of convocation hall
5:10 pm	Compere announces Academic Procession and requests all to rise
5:15 pm	Lighting of Lamp to symbolize opening of Convocation
5:17 pm	Welcome address by Registrar
5:20 pm	Vice Chancellor's address
5:24 pm	Address by Chancellor
5:32 pm	Award of the degree of Doctor of Philosophy, Honoris Causa
5:36 pm	Convocation Address by Chief Guest
5:51 pm	Award of degrees to graduands
6:28 pm	Presentation of medals
6:33 pm	Vote of thanks by Dean (Academic)
6:37 pm	National Anthem
6:39 pm	Academic Procession departs
<b>6:45</b> pm	Group Photograph
6:45 pm	High Tea at Amphitheatre

#### Doctor of Philosoph Honoris Causa

#### Krishnaswamy Kasturirangan CITATION

Dr Krishnaswamy Kasturirangan received his Doctorate in Experimental High Energy Astronomy in 1971 while working at the Physical Research Laboratory, Ahmedabad. One of the most recognised scientists in the world, he steered the Indian Space Programme at its crucial stage of development, wherein his leadership saw successful operationalisation of the India's satellite launch vehicles, launching of a vast range of satellites and laying the foundation of India's moon mission. He has made extensive and significant contributions to studies of cosmic x-ray and gamma ray sources and effect of cosmic x-rays in the lower atmosphere. He has been a strong proponent of climate change research and advocate of balancing both the concerns of development and environment protection. He was instrumental in providing a balanced growth for the Western Ghats and also envisioned setting up waste-to-energy plants at local body levels. Dr Kasturirangan also headed the Committee tasked with creating the new Education Policy for India.

Dr Kasturirangan is the Chancellor of Central University of Rajasthan and a former Chancellor of Jawaharlal Nehru University. He is Professor Emeritus at the National Institute of Advanced Studies (NIAS), Bangalore. He has also been the President of Indian Academy of Sciences, the National Academy of Sciences India, Indian National Academy of Engineering, Indian Science Congress and Director of the National Institute of Advanced Studies. He continues to be a Fellow of many reputed national and international academic and professional bodies including being Academician, Pontifical Academy of Sciences, Vatican, Honorary Fellow, Cardiff University, Honorary Member, International Academy of Astronautics among others.

Dr Kasturirangan is the recipient of several national and international prestigious awards and recognitions including the highest Indian civilian awards of Padma Shri, Padma Bhushan and Padma Vibhushan by the President of India and has been conferred, with "Officer of the Legion d'honneur" by the President of the French Republic. The TERI School of Advanced Studies recognises his contributions to the field of sustainability and education and sees him as a role model for the University. TERI SAS applauds his excellent leadership in science and technology which is recognized globally. The University feels humble and proud by conferring the degree of Doctor of Philosophy, honoris causa, upon Dr Krishnaswamy Kasturirangan.

New Delhi 14 November 2019

#### (Manipadma Datta) Chairperson, Board of Management



## TERI School of Advanced Studies 12th Convocation Address

By K. Kasturirangan Former Chairman, Indian Space Research Organisation Emeritus Professor, NIAS

#### November 14, 2019

Dr Shailesh Nayak, Chancellor, TERI School of Advanced Studies, Prof Manipadma Datta, Acting Vice Chancellor, Capt. Pradeep Kumar Padhy, Registrar, Members of the Board of Management and Academic Council, faculty and staff, distinguished guests, my dear students, Ladies and Gentlemen.

I am delighted to be here today evening with all of you on this august occasion of the 12th Convocation of TERI School of Advanced Studies (TERI SAS). TERI SAS owes its origin to The Energy Research Institute (TERI) and is primarily driven in its planning and implementation by the interest of TERI in areas such as research, consultancy and outreach. I am happy to note that a deemed University status has been accorded to this institution and currently, is actively engaged in a mission to create knowledge and capacity in various areas related to sustainable development. Needless to emphasise, TERI itself is the outcome of the Vision of its legendary Founder, Mr Darbari S Seth, one of the doyens of the corporate sector. His interests went well beyond his core responsibilities, pioneering several initiatives of social relevance and national importance.

Your Chancellor, Dr Shailesh Nayak, is a well-known Scientist Administrator, whose interests are broad-based including use of space systems for natural resources assessment, ocean sciences and geophysics, issues of environment, as well as creating multi-disciplinary programs involving problems at the intersection of natural sciences, social sciences and humanities. His Vision and ideas, I am sure will guide the destiny of TERI SAS in the years to come, taking it to higher levels of performance and achievements. I wish Dr Nayak, the Vice Chancellor and the entire erudite staff supporting TERI SAS, very many accomplishments, recognitions and accolades in the future.

Dear students, let me warmly congratulate all those of you who have the proud privilege of graduating from this esteemed institution today. My best wishes go with you for your success and for achieving what you have been aspiring and dreaming. The spirit of competition and determination with which you met the challenges of the demanding ecosystem of this alma mater of yours is sure to help you move ahead to realize your ambitions and aspirations with confidence. To have had the opportunity to study at this institution of higher learning is a matter of privilege to each one of you. May the value system that this institution has instilled in you inspire you to set high standards in all your future endeavors. High and noble aspirations are indeed the guiding stars in your journey towards achieving perfection and realizing your true potential.

Even at the cost of repetition, I would like to remind my young friends about the contemporariness and crucial nature of the subjects and themes in which this institute undertakes academic and research programs. The subject matter encompasses Energy and Environment, Natural Resources, Water studies, Biotechnology, as well as Climate science. The unique aspects of the related courses stems from the fact, on one side, they adopt multidisciplinary and interdisciplinary approaches and on the other side they address the associated elements of social sciences, economics, policy, legal framework and management. Needless to emphasize, a comprehensive understanding of the different facets of a particular issue can facilitate chartering the right directions in developing strategies for addressing these, leading to the improvement in the quality of life of an individual citizen and creation of a balanced society.

It is obvious that the subject matter that this institute deals with can have substantial inputs, that today space based earth observation satellite systems are capable of generating. In the last 50 years, the Indian space program under Indian Space Research Organisation (ISRO), has established a constellation of earth observation and communication satellite systems. These satellites are capable of providing timely, precise and accurate information on earth resources, both renewable and non-renewable, besides data of relevance to weather and climatological systems. In a sense, we can proudly claim about our capabilities in these areas as one of most versatile and sophisticated in nature anywhere in the world. In providing a brief account of what our Earth observation systems render as application services and which have connectivity with many of the themes that are adopted for academic pursuits in this institution, I am only reiterating the importance of consolidating the linkages between the strength of India's space endeavours in the creation of data and information, modelling and simulation and such other outcomes to the broader aspects of economics, policies and the legal framework that TERI SAS pursues. In other words, the crucial step of transformation-data/information to decision support.

Among the many interesting applications to which space data is deployed in India, some of the more important ones include periodic mapping of land use and land cover towards understanding the interactive processes between land, soil and water with implications to the productivity of the land. Another application relates to forest cover mapping that involve a bi-annual monitoring of our forest cover, assessment of trees outside forest and planning for sustainable use of forest. This is done on a two year cycle to plan for conservation measures of bio-resources. Snow and glacier mapping has been another major area of application covering around 4000 glaciers in parts of J&K, Ladakh, Himachal Pradesh, Uttarakhand and Karnali Basin of Nepal, enabling the understanding of snow accumulation process and ablation pattern in different parts of Himalayan region, to generate inputs for snow melt forecast models.

Some of the other interesting land use applications include wet-land mapping, land degradation mapping and waste land mapping and monitoring.

Interestingly, space systems have been also used to estimate direct and diffused component of incident solar energy and solar power now-casting. Further, methods have been developed to estimate wind energy and wave energy and their temporal variations. One important application of using the synoptic capability of earth observation is to identify nearly two thousand blocks with critical ground water scenario. Plans for water resources mission water conservation & rainwater include harvesting, renovation of traditional water bodies, reuse of bore wells recharge structure, watershed development and intensive afforestation. In the area of climate and environment, space capabilities have enabled the establishment of a multi-institutional system for climate and environment studies.

Currently, 64 bio geo physical products covering terrestrial, ocean and atmospheric domains are generated and includes ecosystem related information on net ecosystem production and net primary production. Space has also made possible biodiversity characterisation at community level. Before I conclude this brief account of the various important applications, it is also of interest to recognise that the fast turnaround capabilities of space systems enable detection and monitoring and where applicable planning the follow-up actions in situations such as floods, tropical cyclones, forest fire and landslides.

I am sure you will appreciate this narration about the potentiality of space system producing extremely valuable and timely data & information, which is an asset that many of you could find use in several of your projects and research activities. Utilization of aforementioned outcomes in the context of looking at other dimensions of а sustainable development study including sociological legal framework and impacts, economics,

policies opens up new and innovative avenues for academic and research activities.

At this stage, I change the topic to cite an example of developing strategies and policies with regard to the conservation and preservation of a complex ecosystem, The Western Ghats. I do this with the specific intention of highlighting the multi-disciplinarity and inter-disciplinarity nature of such a problem, and further recognising the additional dimensions that should be taken cognizance of in developing a comprehensive strategy and policy - an excellent example for a Case Study at TERI SAS.

Western Ghats is a magnificent mountain range, next only to Himalayas and is a biological treasure trove with high degree of endemism and scenic beauty. This unique ecosystem has been threatened by continuously increasing habitat pressures and declared as one of the world's hottest hotspots of biodiversity. In order to protect and rejuvenate the ecology of and for sustainable development of Western Ghats the government set up an expert panel. The mandate included demarcating ecologically sensitive zones and suggest measures to conserve, protect and rejuvenate the ecology of the Western Ghats region. In order to arrive at a comprehensive and holistic understanding of the related scientific, technical, social, cultural, financial and other related issues, the methodology had to develop approaches to dealing with multidisciplinary and interdisciplinary character of the problem, using the best of the analytical tools including use of space-based remote sensing data together with geographic information system, global positioning system in addition to use of most modern surveying Additionally, exhaustive methods. the understanding on the ecological characteristics of the region, identification of heritage ecological sites including the flora and fauna, patterns of human settlements and their vocation, current levels and plans for development and their implication with respect to ecological integrity of the Western Ghats were also addressed in detail. The fundamental issue of reducing the deleterious influence of the anthropogenic activities, ongoing as well as future plans were carefully assessed

including activities that could influence river flows and their impact on the local ecology. Finally, one had to also quantify the financial implications for undertaking the task to ameliorate the various problems of ecological identifying degradation and acceptable alternate occupations for the local residents. Integrating the outcome of the analysis of the various facets of this ecosystem was indeed daunting but not impossible logically, to lead to pragmatic conclusions. Needless to emphasise, many of these conclusions were also suitably moderated with public consultations and most importantly the assessment of the political will to adopt the recommendations. It is a challenge that is worth undertaking for its intellectual & professional demands, analytical rigour and evaluation of the available databases for their authenticity; besides, all that we mentioned earlier. I consider this effort and its variants to be an excellent piece of a challenging problem even at truncated levels for many of the institutions to attempt and to tackle as an academic exercise; certainly it is capable of providing very insightful experience in the context of dealing with a complex system.

Before I conclude my address, I would like to touch upon an important aspect of education, that of introducing Liberal education as a foundational component in higher education. This is being increasingly recognised as a crucial 21st century educational component, to prepare the future youth in particular, to successfully face the dynamic and complex job environment. Liberal Education explores the remarkable relationships that exist among the sciences and humanities, mathematics and art, medicine and

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physics etc., and more generally, the surprising unity of all fields of human endeavour.

A comprehensive liberal education develops all capacities of human beings, intellectual, aesthetics, social, physical, emotional and moral, in an integrated manner. This is turn helps to develop critical thinking, improve communication skills and foster aesthetic sensibilities. The subjects covered will include Visual and Performing Arts, Humanities and Social Sciences, Technology, Science, Engineering and Mathematics, Languages, Sports, etc. Liberal Education will encompass cultivating scientific Temper & Methods, knowledge of History/ Diversity, Constitutional values and practices, Ethical reasoning and morals and Social responsibility. Liberal education will also focus on connect to society and include community service. In short, a liberal education will prepare one to be a thinking citizen for a lifetime. How exactly institutions like TERI SAS can bring concepts of liberal education into the present mainstream educational system is worth giving a thought at this juncture. My dear students, the path to great achievements and success will put enormous demands on you and call upon you to bring to bear the highest degree of professionalism inspired by being a part of a fast changing knowledge ecosystem. This in turn will imply continuous updating of your knowledge and thus making the process of learning a continuous one. The perpetual search for knowledge and ideas has been the hallmark of our intellectual heritage. The following quotation from Rigveda very effectively highlights the same-

आ नो भद्राः क्रतवो यन्तु वश्वितः

# Let noble thoughts come from everywhere unhindered and overfowing."

I wish you all the very best in your professional career and personal life.

Thank you.

# Address by Chancellor

#### **Dr Shailesh Nayak**

Honourable Dr Kasturirangan, Vice Chancellor; Dr Manipadma Datta, Deans, Registrar, faculty members, family members and friends of students, distinguished guests, media representatives and dear graduands.

My heartiest congratulations to all students graduating from this esteemed institution today. It is always so heartwarming to interact with the younger generation, the future of our great country.

As your Chancellor, I am particularly pleased to be at TERI School of Advanced Studies which probably is a unique experiment to create knowledge which ties together environment, inclusiveness and human development. And what makes you, its students, also unique is that you all have consciously chosen a field, that offers you enough scope to pursue an ambition to do something for this planet which is in danger mainly for anthropogenic reasons. My dear students, thank you for choosing a path less travelled, that is not a traditional career path to seek a cozy comfort of a safer life! And above all, it needs a great deal of courage and passion too. I feel proud of you all to have chosen the path of sustainability, a less traveled but worth travelling one indeed, particularly at this juncture of time when the ailing earth needs more leaders from the posterity for following a path of sensible growth. I salute you all for choosing a career that crowns you as the ambassadors of sustainable development all along your life.

I'm quite confident that all of you will leave permanent marks in your field in India and abroad and carry on the mantle of great Indian oneness of 'VASUDHAIBA KUTUMBAKAM'! Even if the whole world is a stage, as Shakespeare commented through one of his greatest tragedies, King Lear, you will remain the most active innovative actors! It's of little relevance where will you work or how will you make a living, what I mean to say, with great natural expectation, is that whatever you do will do with your commitment to the cause of sustainable development!! And that's your uniqueness! You will find much greater scope and opportunity to give back to the society, while following a career of your own! We all will feel fulfilled when you carry to the world what you have all imbibed at this great institution! As you all know, what you have acquired here is much beyond a bunch of scientific and social skills. It's a synthesis of commitment, conviction and philosophy! The message is clear. You are the modern change agents! As we all know, change is the only static phenomenon on earth! TERI SAS has provided you with consciousness and this consciousness will bring in changes, both within and outside!

Let me quote from the celebrated Ugandan author, Agona Apell's The Success of Genome Unraveled: Turning Men from Rot to Rock

Global warming will not end by Earth finding a shade under the trees but under hands joined together And here lies the power of education. Sustainable Development is a complete but complex phenomenon having multiple layers with a solid philosophical standing which is simple but demanding. Mankind has arrived at a stage when it's imperative on us, to choose now or never! It's not a matter of technology, nor of anything else but a united intent. We discuss and deliberate on sustainability seminars. conferences. in workshops and the like. But what we lack is an integrated and conscious approach to deal with its multi-layered construct. It is sad that in India education institutions remain by and large a bit indifferent to the cause. TERI SAS has taken up the challenge singlehandedly and remains the pioneer in the field. In its journey for last two decades, it stood firmly committed towards the cause of providing best research-based education to its students. You remain its front running soldiers to further the process of sustainable development from the very beginning! You are the future. You will chart out the path to contain the impending impact of reckless, irresponsible industrialization and consumption on our planet. Pressures to implement adaptive changes are high with some irreversible climatic changes already upon us. You will take the lead to ensure to reverse the damage we have caused to our own beloved planet! I'm sure we shall achieve it with you in the lead. India, from time immemorial, has shown the world the path. This is the land of Gandhi and Buddha!

From my side, I'm also on the same boat with you! In my long career, I have been trying to contribute in my own way modestly. My area is earth system sciences as you might know! I'm very passionate about it! Be it as a scientist in the Ministry of Earth Sciences (MoES) and Indian Space Research Organization (ISRO), I have tried honestly for the cause of sustainability through understanding interactions of earth processes and human activities. Currently, at the National Institute of Advanced Studies, I'm engaged in

 Promoting Interdisciplinary and multidisciplinary research in natural sciences, social sciences, arts, humanities and technology for addressing various sustainable development goals.

So, you are very close to my heart! Am sharing a little bit of my interest and work with a view to inspiring you for the mission to change the world! As I always maintain, nothing is possible if there's no strong will.

The point I want to make here is all of us have to do as much as we can, particularly in view of SDG 2030. The journey is mutual and continuous.

I am an optimist and always see hope in the society's effort to transform itself for a better future. The effort to strike careful balance between the three pillars of sustainable development – economy, society and the environment, while requiring developmental initiatives to mitigate any environmental impacts has been a good starting point.

India is already poised to become the economic giant in the next few decades. As the future leaders you must be cautious on this path lest we cause further damage in the garb of damage control. The only countries to survive and thrive the present evolution of our planet would be the ones, which indulge in responsible and sustainable growth.

I would like to urge the Vice Chancellor and our esteemed faculty to continue to engage the young minds actively with the emerging challenging issues related to the planet, so that together we can all move towards a more sustainable world. You are doing an excellent job!

Please keep the flame burning. I wish you good luck and all the best for the days ahead!

## Address by Vice Chancellor

#### Professor Manipadma Datta

#### Very good afternoon!

Our Chief Guest, Padmabibhusan Dr. Kasturirangan, our Chancellor, Dr. Shailesh Nayak, our Deans, my other faculty colleagues, our Registrar and other colleagues in administration, the Graduands and other student friends, other distinguished guests, ladies and gentlemen, It's the day we all wait for a whole year, the d-day for our graduating students, the day of aspirations, the day of a new beginning, a day of inspiration and celebration for us all who continually strive for achieving our goal of future leaders for a more sustainable world.

It's also the time to have a relook and march forward. This time we are fortunate to have the opportunity to have and listen to a great scientist of our time! Thus, it's a day of enlightenment too!

Humanity has achieved a lot indeed, but at a huge cost. I'm not referring to the external costs, but the toll the development has taken inside our mind and soul! Sustainable development isn't possible without having a compassionate mind. One can be happy only when people around one is also happy. Without compassion this feeling can't be there! An aphorism enunciated in the Rigveda, which is a well-known one, bahujana sukhaya bahujana hitaya cha, that literally means, for the happiness of the many, for the welfare of the many, needs to be reinforced in us, else, for whom the happiness is!

You might think I'm using a cliché! But my friends, the fact remains that we should know by heart, a mere cerebral knowledge is of little use! If you notice correctly, this is at the core of SDG 2030 too that you have already learnt! Now it's the time to imbibe it, practise it! It's no abstract philosophical discourse. It's needed to keep yourselves happily fulfilled in life!

The second thing I would like to share is the increasing levels of trust deficit in our society! And that has already adversely impacted the global economy too! No civilization can last long if it's not run on the principle of ubarrimae fidei, utmost good faith! We live our life not on legal contracts, but on social agreements! It's true in every field of humaan activities! You must have noticed that the world is fast moving from good management to good governance as the focal point of development, particularly in the post sub-prime crisis era! We all know that the crisis was mainly due to lack of ethical governance! Good governance is mainly based on two elements: utmost good faith and ethics, which are inseparable from each other! When we don't have clarity, our compassion and ethics would show us the path!

So, my friends, go ahead, enjoy your life, have fun, be happy; but with compassion for others, and not at the sheer cost of personal and collective ethics! I congratulate you and wish you all a great life ahead!

Let me end with a few two lines from Langston Hughes, the great African-American poet:

Hold fast to dreams, for if dreams die Life is a broken-winged bird that cannot fly!

## Welcome Address by the Registrar

## Captain Pradeep Kumar Padhy (Retd.)

Ladies and Gentlemen, I deem it a unique privilege to welcome you to the 12th convocation of TERI School of Advanced Studies on this special day. It is indeed an honour to have amongst us Dr K Kasturirangan as Chief Guest to deliver the Convocation Address.

Padma Vibhushan Dr Kasturirangan as we all know is one of the renowned space scientists of India and oversaw the space programme of India as the Chairman of ISRO. He is the Chairman, Inter-University Centre for Astronomy and Astrophysics (IUCAA), the Chancellor, Central University of Rajasthan, and also holds many other important positions.

A very warm welcome to you at the ceremony Dr Kasturirangan.

The academic year closing in May 2019 has been momentous. The commitment of our faculty and staff has been the foundation on which we have made progress in various areas. I take this opportunity to congratulate our faculty whose contribution has been recognized in various fields. Based on the inputs received from academia. industry, alumni. and other stakeholders, we have reviewed a few programmes. The University continues relentlessly on path of dedicated hard work and academic excellence.

With facilitation and coordination support by the University, faculty are currently engaged in large number of projects. Relevant policies that underpin good scientific research practices are put in place and research ladder has been created for establishing Research Centres in the areas of strategic interests of the University. In order to further augment research environment TERI SAS has obtained the approval of Govt of India/DSIR as a Scientific and Industrial Research Organisation, which is a major milestone for the University in its two decade old journey.

The University remains committed to being inclusive, as a diverse population of students, faculty and staff from different religions, castes, cultures, physical abilities and country are its greatest strengths. Policies on various issues have also been revised to conform to changing legal environment and statutory directives. The outreach efforts of the University have been strengthened through hosting of a number of education fests and events over the last year. We are in constant dialogue with our alumni to build a vibrant TERI SAS community for more purposeful engagements. TERI SAS views collaboration with strategic partners as a major step in enhancing its enrichment. To provide fillip to this effort several MoUs have been signed since the last convocation.

We are gathered here today to felicitate the twelfth batch of graduands from this University. 19 of them will receive doctoral degrees whilst 229 will receive master's degrees. I extend my heartiest congratulations to the class of 2017 and the medal winners! Dear Graduands, I admire you for your fine accomplishments during your stay at TERI SAS. My sincere, good wishes for the work you aspire to do in the future. Welcome you all.

Your excellencies, members of diplomatic corps, Trustees, members of Board of Management and Academic Council, visiting faculty members, parents, members of the press, a very warm welcome to you all.

### Vote of Thanks by Dean (Academ

#### Dr Atul Kumar

Good evening, ladies and gentlemen.

Our esteemed chief guest, Dr Krishnaswamy Kasturirangan, Former Chairman ISRO and Emeritus Professor NIAS, Honb'I Chancellor and Vice Chancellor, Deans, faculty members, Registrar of the University, distinguished guests, most importantly our graduating students and their proud family members.

It is indeed my privilege to propose the vote of thanks on this significant occasion. I would like to express my heartfelt gratitude to Prof Kasturirangan, for graciously agreeing to come over to our campus, and sharing invaluable insights from his extensive experience with our graduating batch. We shall cherish this day with you long after the convocation is over.

My immense thanks to our Honb'l Chancellor and Vice Chancellor for your guiding vision. Sirs, let me take this opportunity to thank you for your support which has always been forthcoming.

We would like to express our gratitude to those who have generously helped TERI School of Advanced Studies' development over the last few years. Ford Foundation, NTPC, NHPC, the VK Rasmussen Foundation, DAAD, the German Academic Exchange Service, ONGC,

Personnel Department of and Training, Government of India, Sindicatum Climate Change Foundation, HSBC, IOCL, Deutsche Bank, Suzlon Energy Limited, MacArthur Foundation, and the Open Society Foundation, for their contributions to our programmes through endowments and scholarships. A special thanks to Coca Cola for their support in setting up the Department of Regional Water Studies, and the Delhi Development Authority, for help in many forms. There are so many people in the Organising Committee who have contributed to this ceremony. These are all the people who made sure we all smile today. It would not be possible to name them individually. Nevertheless, my thanks to each one of them.

Thanks to the volunteer students who have been working hard to arrange this event. I profusely thank my colleagues in the Administration Team including the technical and support staff. You are the silent workers behind the scenes and truly deserve a special thanks.

Esteemed faculty members, you are the backbone of this institution. I would like to thank all of you for your commendable efforts throughout the year and for making the academic journey of our students at TERI SAS worthwhile. Thank you to the entire graduating class of 2019 for giving us this proud moment and the wonderful memories for a lifetime to cherish. Thank you for coming in such overwhelming numbers. This institution remains indebted to you forever. Those who have graduated today, we hope that you go out as ambassadors of the TERI School of Advanced Studies and seek to pursue your dreams.

And a special thanks to the parents and family members for being here coming all the way to our campus – we know it is a proud day for you. It asserts faith in what we are doing towards society. Your presence has made all this difference to this function.



## List of toppers 2017-2019

Ishita Sinha	
1700091MAS	MA (Sustainable Development Practice)
Sanchit Sethi	
1700108MSO	M.Sc. (Economics)
Anju Bhaskaran	
1700040MSW	M.Sc. (Water Science and Governance)
Shinjini Singh	
1700087MTR	M.Tech (Renewable Energy Engineering and Management)
Sakshi Ghildiyal	
1700186MSE	M.Sc. (Environmental Studies and Resource Management)
Soumya Sharma	
1700195MSP	M.Sc. (Plant Biotechnology)
Mohita Taneja	
1700149MBB	MBA (Business Sustainability)



## List of toppers 2017-2019

Sucheta Bhattacharjee			
1700184MSG	M.Sc. (Geoinformatics)		
Pusapati Chandana			
1700015MSC	M.Sc. (Climate Science and Policy)		
Priya Upadhyay			
1700115MTU	M Tech (Urban Development and Management)		
Divyansh Upadhyay			
1700123MTW	M Tech (Water Science and Governance)		
Raminder Gill (2018-2019)			
1800165LLM	Master of Laws (Environment and Natural Resources Law)		
Deepak Virmani			
1700254MAP	MA (Public Policy and Sustainable Development)		





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