Techno Symposium CoES - 2015

Convener: Dr. Kamal Bansal, Dean CoES – UPES and Dr. Ajay Kumar Srivastava, Associate Prof. Mechanical Engg. - UPES **Co-Convener:** Dr. Amit Mondal, Asst. Prof. (Sr. Scale) EIC - UPES and Mr. Shival Dubey, DRF Mechanical Engg. – UPES TechnoSymp is an annual M.Tech symposium event where 1st and 2nd year PG students are encouraged to showcase their research. The aim behind TechnoSymp is to cultivate the research orientation in engineering domain among PG students. This year TechnoSymp was organized on 15th September, 2015 i.e. on "Engineers Day". 34 papers in the different areas of engineering were presented in the research paper category, while 15 posters were exhibited in innovative poster category.

Visit/Lectures



Dr. V. P Singh (Distinguished Professor & Caroline and William N. Lehrer Distinguished Chair in Water Engineering of Biological and Agricultural Engineering; & Zachry Department of Civil Engineering Texas A & M University College Station, Texas) delivered a lecture **on "Water Resources Assessment for Climate Change"** on 16th December 2015 and It was considered that water related research will be enhanced in upcoming years.



Mr. Pranay Kumar (CEO of Vasudha Group Companies) has visited UPES on 19 November 2015 to explore research collaborative opportunities in the area of water treatment and management and to enhance research culture among students and also pave a path for industry. Mr. Kumar was impressed after interacting with students and will consider them for internship in the industry.

Distinct Achievements



UGC sponsored visiting associateship awarded and extended further upto August 2018 at IUCAA to **Dr. Shyamal Kumar Banerjee**, Sr. Professor and Associate Dean, College of Engineering, UPES. First time, it was awarded to Dr. Banerjee in the year 2000 for three years and since then he has been receiving the same from UGC continuously, after having proper official review and assessment of his work every end of third year. During this period Dr. Banerjee works on different projects in the area of General Relativity and Cosmology with Padma vibhushan Prof Jayant Vishnu Narlikar as a joint Collaborator.



Ms. Vindhya Devalla Doctoral Research Fellow in Aerospace Engineering Department had presented a paper on "Performance Analysis of a Powered Parafoil Unmanned Aerial Vehicle Using Open Loop Flight Test Results and Analytical Results" authored by Ms. Vindhya Devalla, Dr. Amit Kumar Mondal and Dr. Om Prakash at RED UAS 2015, IEEE, Robotics and Automation Society, Cancun, Mexico during 23 devaluation Society Science on "Application of UAVs".



Dr. Krunal M. Gangawane Assistant Professor-Selection Grade in Chemical Engineering Department has won **'Young Scientist Award'** in Engineering – Fluid Mechanics by Venus Research Foundation (VRF) on 19 th December 2015.

He was also shortlisted for the talk on "Multiphase Flow in Power and Steel Industries" in National Symposium on Multiphase Flow (NSMF 2016) at NIT Durgapur.

Invited Lectures by ISRO Delegation – 2nd to 3rd July 2015

First Visit to UPES from the VSSC Wing of ISRO



Group of scientists from **VSSC@ Thiruvananthapuram**, a major wing of **ISRO**, visited UPES during 2nd to 3rd July, 2015 with the objective to enhance the academic base, generate quality human resources and infrastructure at the academic institutions to support the space programme of the country. The team, led by **Mr. M.V.Dhekane**, AD R&D, VSSC along with

Dr Benny K George, Mr. R Sujithkumar, and **Mr. PV Anil Kumar**, delivered series of lectures, covering various research areas such as launch vehicle design, propellants, solid propulsion technology, aerodynamics, polymers and composites, guidance, control, FEAST software and materials.

Mr. M V Dhekane, presented a detailed and highly informative journey of VSSC on how in 1960s, Homi Bhabh along with Vikram Sarabhai, finalized Thumba, a small village, known for fishing, near the Thiruvananthapuram airport for initiating the space research. From launching of the first sounding rocket on 21 Nov 1963 to Mangalyaan, ISRO has become one of the best space research organizations of world. Members@ UPES were excited to corelate almost the similar inception of UPES in a small rented house.







Dr. Benny K George, explained the challenges and demand of ISRO in the area of material and chemical technology. Propellants, rubber products, polymers and composites, required for launch vehicles, still required specific improvement. It was highly interactive session where UPES faculties were keen to contribute in alloys, fuel advancements and coatings.

Mr. P.V.Anil Kumar described the Finite Element Analysis & FEAST Software and its application in various areas. Faculties were very interactive to incorporate the new modules in FEAST.

Mr. R Sujithkumar's lecture in the areas of propellant technology was very informative to aerospace department @UPES and ISRO delegate were interested to discuss useful ideas on re-entry of capsule, control module and parachute based re-entry of satellites.







Visit/Lectures



Dr. Aziz Boussofian (Director, UH Global-University of Herdfordshire, UK) visited UPES to explore research collaborative opportunities during 8th-9th October 2015

Dr. T K Joshi, Director (Occupational Environment Program, Maulana Azad Medical College, New Delhi) gave an intriguing lecture on **'Occupational Health and Safety'** to the undergraduate and postgraduate students of the HSE department during 31st of August 2015.



Distinct Achievement



The Department of Science and Technology (DST) grants a research project titled 'Petrography and Geochemistry of Gas bearing shale from Permo-Triassic shales of Kommegundam and Mandapeta region of Krishna Godavari Basin India' to Dr. J Devaraju and Dr. U Kedareswarudu worth 27.13 Lakhs INR for a period of 3 years.



Dr. Jitendra Pandey from the Research and Development Department *is on Editorial Board* consisting of Dr. M Misra and Dr. Amar Mohanty from UoG, Canada for the Book titled 'Biocomposites: Design and Mechanical Performance' published by the Woodhead Publishing (an imprint of Elsevier). The book is available in the UPES library and to purchase a copy online please <u>click here</u>.



Mr. Niteen Ramchandra Yeole from the Chemical Engineering Department had recently won the First Prize for his Oral Presentation on 'Newer Insights into Green and Low Cost Zeolitic Adsorbents for Adsorptive Desulfurization of Liquid Transportation Fuels' in the 'International Conference on Sustainable Chemistry & Engineering, SusChemE 2015' held at The Lalit, Mumbai during October 8th-9th, 2015.





Mr. Amit Kumar Mondal of the Electronics, Instrumentation and Control Department received the Travel Grant from DST, Government of India to present his paper titled "Incremental Real-time Multibody VSLAM with Trajectory Optimization Using Stereo Camera" in the European Conference on Mobile Robots -2015 (ECMR-2015) in Lincoln, UK. It was held during 2nd 4th September, 2015. The conference was technically sponsored by IEEE Robotics and Automation Society (IEEE-RAS).

Mr. Rajesh Singh and Ms. Anita was awarded with Certificate of Excellence in the 3rd faculty branding awards-15 which was organized by EET CRS research wing for excellence in professional education and Industry in the "Award for Excellence in Research" and "Young Faculty Award" categories respectively.





MEMORANDUM OF UNDERSTANDING

BETWEEN



UTTARAKHAND SPACE APPLICATION CENTRE

Department of Science & Technology 131, Phase-II, Vasant Vihar, Dehradun-248006 Uttarakhand

AND



UNIVERSITY OF PETROLEUM & ENERGY STUDIES,

'Energy Acres', P.O. Bidholi, Via Prem Nagar, Dehradun, 248007 Uttarkhand

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding is made at Dehradun on this 23 day of October . 2015.

BETWEEN

Uttarakhand Space Application Centre (USAC) is the nodal agency in Uttarakhand state for space-technology related activities and has the mandate to employ spacetechnology for the benefit of the state and its people. It was constituted as an autonomous organization in 2005, under the Department of Science & Technology. Government of Uttarakhandwith its registered office at 131/2, Vasant Vihar, Dehradun-248001. India through its authorized signatory, Sh. R.S. Mehta, Senior Administrative Officer.

AND

University of Petroleum and Energy Studies (UPES), a University established under the University of Petroleum and Energy Studies Act, 2003, enacted by the State of Uttarakhand, having University Campus at Village Bidholi, Dehradun Uttarakhand (hereinafter referred to "UPES") through its authorized signatory, Mr Abhay Sharma, Registrar of the second part.

PREAMBLE

Whereas, USAC is engaged in research in the field of Engineering and Technology specific to the applications on Remote Sensing & GIS Techniques.

WHEREAS. UPES which, charged with the responsibility of training technical manpower in different areas of Engineering, including Aerospace Engineering, Technology, Science, Management and Humanities & Social Sciences, is also contributing to the rapidly growing scientific and technological knowledge and professional excellence in S&T undertaking industrial & applied research and consultancy.

University of Petroleum & Energy Studies

WHEREAS, both USAC and UPES, now:

- Recognizing the importance of research and development in the areas of Space Applications, Remote sensing & GIS Engineering, Sciences, Design and developments of air vehicles.
- · Desiring to club their efforts by pooling their expertise and resources.

INTEND to form a nucleus for promoting excellent quality manpower in the fields of Engineering. Technology and Science with a focus on Aerospace and AvionicsEngineering, other branches of Engineering, Technology and Science.

NOW, THEREFORE, in consideration of the mutual promises made herein and of good and valuable consideration which both USAC and UPES hereby acknowledge. USAC and UPES hereby agree as under:

ARTICLE - I: SCOPE OF THE MOU.

This MOU details the modalities and general conditions regarding collaboration between USAC and UPES for enhancing within the country and state, the availability of highly qualified manpower in the area of Aerospace Engineering, and other areas of Engineering, Technology and Sciences without any prejudice to prevailing rules and regulations in USAC and UPES and without any disregard to any mechanism evolved and approved by the competent authorities under Govt, of Uttarakhand in so far as such mechanism applies to USAC and/or UPES. The areas of cooperation can be extended through mutual consent.

ARTICLE -I I: SCOPE OF ACADEMIC INTERACTION

USACand UPES shall encourage interaction between the USAC Scientists and UPES faculty members and students through the following arrangements:

- (a) Cooperative activities may involve programs relating to research, teaching, and outreach; and may involve any discipline to the extent that individuals are able to locate suitable counterparts at the other institution.
- (b) UPES and USAC agree to facilitate, where financially feasible, long-term and short-term exchanges of faculty, students and staff, Sabbaticals, faculty

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improvement leaves, visiting professorships, research collaboration and other activities may be added when developed and approved by the two institutions.

- (e) Organizing of joint conference and Seminar
- (d) Funding support:
- (e) Summerinternship of UPES student at USAC
- (f) Joint guidance of student's projects/thesis in Aerospace/Avionics Engineering. Remote Sensing, and other areas of mutual interest at UPES by USAC Scientists & faculty of UPES as per rules and regulations of UPES.
- (g) Joint R&D collaborations in the field of space applications

ARTICLE - III: SHARING OF FACILTIES

- (a) USAC& UPES shall make provisions to share their respective important R&D facilities in order to promote academic and research interaction in the areas of cooperation.
- (b) Officespaceand academic facilities provided to visiting faculty members may vary among departments. The respective department chairs or heads, in consultation with visiting faculty members, will make such arrangements.
- (e) USAC and UPES shall permit the exchange of software and other materials and components developed in-house in the areas of cooperation, if permissible with in the rules governing the two institutions.
- (d) USAC and UPES shall provide access to the library and inter-library loan facilities to scientists, members of faculty and students as per the prevailing rules and norms in the respective institutes.

ARTICLE - IV: CO-ORDINATION OF THE PROGRAMME INCLUDING FINANCIAL ARRANGEMENTS

- (a) The collaborative programme between USAC and UPES shall be coordinated by a Co-ordination Committee appointed by Director, USAC and Vice- Chancellor UPES.
- (b) Financial arrangements for each specific collaboration will be decided by the Coordination Committee on a case-to-case basis and brought on record in each case.

ARTICLE - V: EFFECTIVE DATE AND DURATION OF MOU

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- (a) This MOU shall be effective from the date it is signed by competent authorities at both ends
- (b) The duration of the MOU shall be a period of 5 years from the effective date.
- (c) During its tenancy, the MOU may be extended or terminated by a prior notice of not less than six months by either party. However, termination of the MOU will not in any manner affect the interests of the students who have been admitted to pursue a programme under the MOU.
- (d) Any clause or article of the MOU may be modified or amended by mutual agreement of USAC and UPES.

ARTICLE - VI: IPR

Rights regarding publications, patents, royalty, ownership of software/design/product developed etc. under the scope of this MOU, shall be decided by the two parties by mutual consent.

ARTICLE - VII : ARBITRATION

Any dispute arising out of this MOU will be resolved amicably by mutual consultation. If such resolution is not possible, then, the unresolved dispute will be referred to the coordination committee appointed jointly by Director, USAC and Vice- Chancellor UPES.

The outcome of the committee shall be binding upon both the parties.

ARTICLE - VIII : CONFIDENTIALITY ETC

During the tenure of the MOU both USAC and UPES will maintain strict confidentiality and prevent disclosure of all the information and data exchanged under the scope of this MOU for any purpose other than in accordance with this MOU unless such disclosure is required to be done under the binding laws, regulations or governmental orders; provided that in such case the Party required to disclose shall give sufficient prior written notice to the other Party. In addition the USAC shall:-

- Protect all assets of UPES that come within its control.
- Adhere to "zero tolerance" practice of the UPES, towards bribery and corruption and ensure that any overt or covert attempt by any University employee of seeking illegal gratification, whether in cash or in kind, is reported to the UPES immediately.

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- Ensure that Gift. Meal, Entertainment or any other form of business courtesy is not extended to any employee of the UPES or any other person acting or purporting to act on behalf of UPES.
- immediately disclose to the UPES in case any of its official / employee has any relationship or connection howsoever remote it may be, with any official or employee of the UPES and also of any other situation which may give rise to a possible conflict of interest, during the course of this MoU.

IN WITNESS WHEREOF, THE PARTIES HERE TO HAVE ENTERED INTO THIS AGREEMENT EFFECTIVE AS ON THE DAY, MONTH AND YEAR HEREIN ABOVE WRITTEN IN THE PRESENCE OF:

University of Petroleum & Energy Studies

SENIOR ADMINSITRATIVE OFFICER Uttarakhand Space Application Centre

Dehradun- 248006 Uttarakhand

(Abhay Sharma) REGISTRAR

University of Petroleum & Energy Studies "Energy Acres", P O Bidholi Via Prem Nagar, Dehradun Uttarakhand - 248 007

WITNESSES:

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Invited Lectures / Keynote Speakers / Visitors (Apr'16 – Sep'16)



Dr. Savita, Director FRI and Vice Chancellor FRI University, discussed about application of biomass waste such as bamboo and lantana weeds in biogas production, she also discussed the challenges in commercialization of biogas in urban areas and also decentralized biogas plants in electricity generation during "**National Seminar on Upgradation and Commercialization of Biogas**" held on 8th July, 2016.



Dr B. S. Negi. Advisor, Ministry of New and Renewable Energy, MNRE, Govt. of India in his key note address during national seminar on "**Upgradation and Commercialization of Biogas**" held on 8th July, 2016, emphasized that Biogas based power units of small capacity range (3 kW to 250 kW) based on biomass waste can be a reliable decentralized power generation option in the country and hence the research in this area should be focused.



Dr. Uma Kant Panwar, Secretary, Energy, Govt. of Uttarakhand, suggested utilizing the food waste of Cities like Rishikesh and Haridwar for generation of biogas, benefits of food waste based decentralized biogas plants, electricity generation using bio-gas and biogas supported grids in his inaugural address during national seminar on "**Upgradation and Commercialization of Biogas**" on 8th July, 2016.



Mr. Rajiv Kumar, Scientist, International Co-operation Division, DST, Delhi delivered a talk on the topic "Opportunities for Funding and Evolving of Proposals" on 22nd August 2016. His talk gave knowledge on S&T system in India, mandates of DST, research & development programs, technology development programs, international S&T cooperation and some recent highlights of Indian S&T scenario- new missions and initiatives.



Professor Ashok Misra, FNASc, FNAE and Chairman BoG, IIT Roorkee delivered lecture on "Fostering Creativity and Inventions in Science and Technology" on 8th September, 2016. During the talk he highlighted the importance of focusing on intellectual property through teaching and research. He has also mentioned the importance of developing advanced technologies, inventions and intellectual property for the growth of the institution.



Mr. David Lelliott, British Deputy High Commissioner Chandigarh delivered a talk on the topic entitled "UK Research Funding and Scholarship Opportunities" on 30th May 2016. During his talk he gave an insight of various opportunities existing between India and UK for technology transfer. To list a few among those opportunities are: GIAN (Global Initiative for Academics Network), Generation UK-India program, India-UK Advanced Technology Centre (IU-ATC) program, Newton Bhabha program, Chevening India program, Generation UK-India programme.

MEMORANDUM OF UNDERSTANDING

BETWEEN

M GROW SOLUTIONS

AND

UNIVERSITY OF PETROLEUM & ENERGY STUDIES

Background:

This MoU is a part of initiative by M GROW SOLUTIONS and the University of Petroleum and Energy Studies for bridging gap between industries and Universities and for enhancing industry — academia collaboration for mutual benefit.

1. Description of both institutions:

M GROW SOLUTIONS is a Partnership Firm having its registered office at 99, 3rd Floor. Narang Colony, Janakpuri New Delhi-110058 and Head Office at 263, Sukhdev Vihar New Delhi-110025 and is acting through its Partner and authorised signatory Mr Surinder Singla. M GROW SOLUTIONS was established in 2012 and designs and manufactures various Plants for Water Management Solutions.

University of Petroleum and Energy Studies (UPES) was established in the year 2003 through UPES Act, 2003 passed by the State Legislature of Uttarakhand and has its campus at Energy Acres, Bidholi, Dehradun and is acting through its Registrar Mr Abhay Sharma. UPES emerged as an innovative institution offering industry-focused specialized graduate, post graduate and doctoral programs in key areas such as Energy, Infrastructure, Transportation, Information Technology, Management and Law. UPES endeavours to be recognized as a 'Nation Builders University' with a progressive vision of creating specialized professionals in the core sectors that can contribute in the economic growth of the country.

The university's objective is to develop domain specific and competent technocrats, professionals and managers who are ready to join the core industries. Advanced teaching methodologies, innovative and updated curricula and the focus on 'on-the-job exposure' give UPES students the edge to be readily deployable in the chosen field.

About R&D Activities at UPES:

Vision-

 To be at the vanguard of becoming an International Centre of Excellence in the areas of Alternate & Renewable Energy, Oil & Natural Gas and Infrastructure & Project Finance

Mission-

 Engagement in scientific research, humanistic scholarship, and innovative creation to advance the community of learning.

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- Create a progressive research environment to attract highest quality researchers, and prepare the next generation of skilled and ethical professionals, by providing excellent education and training to compete in the diverse global market.
- Develop a strategic intellectual property portfolio to answer important questions and contribute to the social, political, environmental and economic growth of Uttarakhand, India and the World at large.
- Explore, manage and offer partnership for strategic collaboration across the world from business and industry, public sector, consumers to policymakers.
- Offer a wide variety of off-campus training programs, including the use of information technology for individual and group development by propagating research triggered applications.

R&D @ UPES is actively convoluted with variety of research domains ranging from basic science to applied and industry oriented research. R&D has recorded exceptional growth in terms of publications and funding from several national and international bodies. R&D@ UPES has received the financial support from DST. MNRE, UCOST, DBT. IOCI, ONGC, ABB, etc. And has an up-to-date database of network for faculty members to map relevant people in various institutions across the country and globe for collaborative research projects. R&D have implemented the 'Sophisticated Instruments Lab' for all the researchers to make use of the all the facilities available in the university in a pro-rata basis.

The Parties hereto shall be referred to as M GROW SOLUTIONS and UPES respectively and jointly as Parties.

2. Areas of collaboration:

The Parties will promote and cooperate in:

- i. Bridging gap between Corporate and University.
- ii. Provide opportunity for training of UPES staff in industrial automation.
- iii. Provide opportunity for training / internship to students of UPES.
- iv. Exploring areas for co-operation on continuous basis.
- v. M Grow will provide on-site training to students and faculty on highend technologies which are commonly used in industry.
- vi. All other relevant activities of mutual interest to M Grow and UPES subject to understanding on a pro rata basis.



3. Coordinators:

M GROW SOLUTIONS and UPES shall appoint "Coordinators" in their respective offices in New Delhi and Dehradun, who shall be responsible for coordinating all communication and directing the implementation of the MoU.

4. Duration:

The duration of the MoU shall be initially for a period of 3 (three) years, effective from date of signing hereof and may be renewed thereafter for such time and on such terms and conditions as may be mutually decided by the Parties. The MoU is subject to revision by written agreement between the Parties.

5. Financials

The financials arising out of any collaborative activity between the Parties shall be shared on such terms as may be mutually decided between the Parties.

6. Termination of MoU:

Either party may terminate this MoU by written notice of one month to be signed by signatories hereto. Provided that such termination shall not affect any ongoing collaborative activity which shall be taken to its logical conclusion.

7. Mutual Non-Disclosure:

UPES recognizes that certain confidential information concerning the M GROW SOLUTIONS will be furnished to UPES inconnection with the MoU. UPES agrees that it will not disclose such Confidential Information to anyone without taking prior permision in written from M Grow Solutions_except where such disclosure is required by process of law.

M GROW SOLUTIONS shall protect all assets of the UPES that come within its control and ensure that all information respecting to UPES that comes to its knowledge on account of this agreement is protected, kept

UNIVERSITY OF PETROLEUM & ENERGY STUDIES

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confidential and not disclosed to any third party unless required to do so in due course of law after prior intimation of such proposed disclosure to UPES.

General Clauses

- That the M GROW SOLUTIONS shall comply with "zero tolerance" practice of the UPES towards bribery and corruption and ensure that any overt or covert attempt by any UPES employee of seeking illegal gratification, whether in cash or in kind, is reported to the UPES immediately.
- That the M GROW SOLUTIONS shall ensure that Gift, Meal, Entertainment or any other form of business courtesy is not extended to any employee of the UPES or any other person acting or purporting to act on behalf of UPES.
- M GROW SOLUTIONS shall immediately disclose to the UPES in case
 it has any relationship or connection howsoever remote it may be, with
 any official or employee of the UPES and also of any other situation
 which may give rise to a possible conflict of interest, during the course of
 this agreement.

IN WITNESS WHEREOF, the undersigned, being duly authorized thereto, have signed this Agreement in two original copies in English at the place and on the date(s) indicated below:

Signed for, and on behalf of,

M GROW SOLUTIONS

Surinder Singla

Partner.

Signed for, and on behalf of,

University of Petroleum &

Energy Studies LEUM & ENERGY STUDIES

Abhay Sharma Registrar.



FACULTY OF CHEMISTRY AND CHEMICAL ENGINEERING

Smetanova 17 SI-2000 Maribor, Slovenia www.fkkt.um.si

Maribor, April 19th 2016

INVITATION LETTER

To:

Dr. Pandey Jitendra Kumar

Personal data:

Date of Birth:

October 20th 1978

Home Address:

Identity Card No.: L1520509 (Date of Expiry: April 10th 2023)

Bharthana Road, Bakewar, Etawan

"International cooperation between University of Petroleum and Energy Studies, Department of Chemistry"

Our organisation:

FULL NAME:

University of Maribor, Faculty of Chemistry and Chemical Engineering

ADDRESS:

Smetanova 17

Postcode:

2000 | Town/city: Maribor

Country:

Slovenia

Tel.

00386-2-22-94-400 | Fax: 00386-2-25-27-774

Dean:

Prof. Dr. Zdravko Kravanja

Declares:

within the framework of international project "Immobilization of enzymes on various nanostructures for the fabrication of bio-sensors, University of Petroleum and Energy **Studies**

I kindly invite Dr. Pandey Jitendra Kumar to visit our Faculty for a period June 1st 2016 until June 8th 2016.

The accommodation costs in Residence Hall for graduate students and visiting professors, travel costs and daily allowance will be covered by the Indian University.

Dean:

Prof. Dr. Zdravko Kravanja





INSTITUTE OF CHEMICAL TECHNOLOGY

रसायन तंत्रज्ञान संस्था

University under Section-3 of UGC Act 1956 Estd. 1933 NBA Accredited, Grade 'A' by MHRD University Par Excellence

Elite Status & Centre of Excellence - Government of Maharashtra

Dean RCRM/RSS/ 6 62~

December 7, 2015

To.

Dr. Jitendra K. Pandey AVP- Research and Development University of Petroleum and Energy Studies Bidholi Campus, Dehradun - 248 007.

Mob.: 7579216817

Sub: Memorandum of Understanding

Dear Dr. Pandey.

Please find enclosed herewith the copy of MOU between University of Petroleum and Energy Studies, Dehradun and Institute of Chemical Technology, Mumbai for your office record.

Thanking you and with regards.

Yours sincerely,

Rescha Simple Proj. Rekha s. singh

DEAN

(Research, Consultancy & Resource Mobilization) INSTITUTE OF CHEMICAL TECHNOLOGY (University under Section- 3 of UGC Act 1956) Elite Status & Centre of Excellence - Govt. of Maharashtra

Matunga, Mumbai - 400 019.

Nathalal Parekh Marg, Matunga, MUMBAI - 400 019. INDIA

www.ictmumbai.edu.in

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Fax: +91-22-3361-1020

Email: initials.surname@ictmumbai.edu.in





Memorandum of Understanding for Academic Cooperation and Exchange

Between

University of Petroleum and Energy Studies, Dehradun

Institute of Chemical Technology, Mumbai

This Memorandum of Understanding (MoU) is reached between University of Petroleum and Energy Studies , a University constituted under the University of Petroleum and Energy Studies Act 2003, passed by the state legislature of Uttarakhand having its Main Campus at "Energy Acres", Bidholi, Dehradun, Uttarakhand hereinafter referred to as UPES, of the First part;

AND

The Institute of Chemical Technology, (formerly Department of Chemical Technology), a deemed to be University having its location near Don Bosco School, Nathalal Parekh Marg, Matunga, Mumbai hereinafter referred to as ICT of the Second Part,

This MoU is intended to facilitate cooperative activities in research, and exchange of faculty and research scholars. The MoU will cover a Three (3) year period commencing on the date of last signature, and may be extended for additional three-year periods by mutual written agreement. The MoU may be terminated by either university/institute upon six-month written notification to the other institute/university.

UPES and ICT agree to facilitate, where financially feasible, short-term to mid-term exchanges of faculty and research scholars. Sabbaticals and visiting professorships may be added when developed and approved by the two institutions.

Cooperative activities may involve programs relating to collaborative research, teaching, and outreach; and may involve any discipline to the extent that individuals are able to locate suitable counterparts at the other institution. With regard to cooperative research under authority of this MoU, the institutions will on a project by project basis enter into a specific agreement to clarify and define the nature, extent and terms governing the project, including intellectual property terms that will take into account the institutions' respective intellectual property policies and collective agreements.

Academic facilities provided to visiting faculty members may vary among departments. The respective department chairs or heads, in consultation with visiting faculty members, will make such arrangements.

The purpose of this MoU is only to express the intentions of the institutions and is not

University of Petroleum & Energy Studies
Registrar

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intended to be legally binding on either institution. The specific details of each activity shall be recorded and agreed to in writing prior to implementation and shall be governed by a separate agreement. Prior to finalizing individual visits, representatives at both institutions shall secure approval from their respective department heads, deans, and designated university/institute administrative officers.

Specific terms of agreement providing for transfer of information, faculty, and Research Scholars for education, research or related activities will be proposed by the two institutions through their respective faculties and units, in consultation with recommendation and designated concurrence by the appropriate offices.

For conditions not covered by this MoU or for problems that arise, both institutions agree to refrain from unilateral action and to consult and negotiate mutually agreeable decisions.

The ICT / representatives shall:-

- Protect all assets of the UPES that come within their control and ensure that all
 information respecting to UPES that comes to their knowledge on account of this
 agreement is protected, kept confidential and not disclosed to any third party
 unless required to do so in due course of law after prior intimation of such
 proposed disclosure to UPES.
- Comply with "zero tolerance" practice of the UPES, towards bribery and corruption and ensure that any overt or covert attempt by any University employee of seeking illegal gratification, whether in cash or in kind, is reported to the UPES immediately.
- Ensure that Gift, Meal, Entertainment or any other form of business courtesy is not extended to any employee of the UPES or any other person acting or purporting to act on behalf of UPES.
- Immediately disclose to the UPES in case it has any relationship or connection howsoever remote it may be, with any official or employee of the UPES and also of any other situation which may give rise to a possible conflict of interest, during the course of this agreement.

It is recognized that the implementation of this MoU will in every case be dependent upon the availability of necessary resources, either from within the institutions or from external sources.

Both institutions undertake to respect and promote human rights in accordance with their international obligations. The institutions will promote equality of individuals involved or affected by the programmes, and will not discriminate on the basis of race, sex, ethnicity, religion, or other characteristics.

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The points of contact between the Parties shall be as under:-

1. University of Petroleum and Energy Studies

Dr J K Pandey

Head R and D, UPES

Email: jkpandey@dd.upes.ac.in Contact: 0135 2776093 ext 1228

2. Institute of Chemical Technology

Dr Rekha Singhal

Professor and Dean (RC&RM) Email: rsinghal7@rediffmail.com

Contact: 022 33611030

Signatures:

University of Petroleum and Energy Studies

(UPES)

University of Petroleum & Energy Studies

Institute of Chemical Technology (ICT)

Abhay Sharma Registrar

Date: 07/12/2015

Rekha Singhal, PhD Dean (RC & RM)

Date: 07/12/2015

DEAN

(Research, Consultancy & Resource Mobilization)
INSTITUTE OF CHEMICAL TECHNOLOGY
(University under Section-3 of UGC Act 1956)
Elite Status & Centre of Excellence - Govt. of Maharashtra
Matunga, Mumbai - 400 019.



CONTRACT MANAGEMENT POLICY Appendix A

DOCUMENT REVIEW AND APPROVAL FORM

Type of Document / Contract: MOU - Memorandum of Understanding					
			4/	Mov of : 07-12-	
Entity/ies:	UPES .				
Supplier/Vend	or/Other/s: Instelle of	chemical :	Textenat	lagy, Munta.	
A STATE OF THE PARTY OF THE PAR	et □Amendment/Exhibit □Corpor			mication □Other	
	: 7/12 15 Expiration Date:			Automatic renewals	
	ion/Purpose: faulita search work a lty -	nd Ex		p of	
Part I (Finance	ce / Treasury)				
Institution/Bus	siness Unit:	Department:			
Cil. Account: Total Amount:					
Budgeted	□ Yes □ No □ N/A				
□ Op Ex,	Single Payment Amount:	Date Ro	equired:		
□ Op. Es.	Multiple Payments: # of Payments:	Start I	Date:	and the property sale of	
	Amount of each Payment:				
	From:	<u>To:</u>			
□ Cap. Ex.	Amount:				
	Project #:	Phase:			
Part II (Chec	klist)				
Internal Comp	nents Received from Project Team?	□Yes	□ No		
Contract(s) Fu	Illy Negotiated?	□ Yes	□ No	EI N/A	
Bid Submitted	17_	□ Yes	□ No	□ N/A	

REVIEWS & APPROVALS

Your signature below attests to the fact that you have read the Contract in its entirety, understand its provisions and believe that it meets the programmatic and business goals of your business unit and if policy requires your review, you have completed that review.

	Required?	Name	Title	Date	Signature & Comments
Initiator	X	Por Jitendra Ponday	MP-RUD	W1116-	c-mail mached in.
Treasury	□ Local □ Region □ Corporate □ N/A				rs e-mail attached
Legal	□ Local □ Region □ Corporate □ N/A	Cdv. P. Parthun	D MX I)	11 1 16	= e-mail attached
Tax	□ Local □ Region □ Corporate □ N/A				a e-mail attached
Finance	□ Local □ Region □ Corporate □ N/A	Mr. Sandref Vaci	ut FC	12/1/16	Soo-
Academic	□ N/A	Por J. Lends Panky	AMP- 1049	IMICG	Janots

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******	Required?	Name	Title	Date	Signature & Comments
Accounting	□ Local □ Region □ Corporate □ N/A	Mr. Sandref Vasi	et FC	12/1/16	Do / □ e-mail attached
Marketing	□ Local □ Region □ N/A				□ e-mail attached
CFO	□ Local □ Region □ Corporate □ N/A				
President/ CEO	□ President □ CEO □N/A				□ e-mail attached □ e-mail attached
Capital Committee	□ N/A				□ e-mail attached
Board of Directors	□ □ N/A				□ e-mail attached



COLLABORATION FRAMEWORK AGREEMENT

between

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

and

THE UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG acting through the

FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT, SCHOOL OF MECHANICAL, INDUSTRIAL AND AERONAUTICAL ENGINEERING





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ANNEX I

Project Agreement model form

ANNEX II

Project Agreements (to be added whenever concluded)



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:



COLLABORATION FRAMEWORK AGREEMENT

BETWEEN

THE UNIVERSITY OF PETROLEUM AND ENERGY STUDIES (Hereinafter referred to as

"UPES"), duly represented by Mr. Abhay Sharma acting in his capacity as Registrar;

AND

THE UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG, acting through the Faculty

of Engineering and the Built Environment, the School of Mechanical, Industrial and

Aeronautical Engineering (hereinafter referred to as "University" or "Wits"), duly

represented by Professor Tawana Kupe, acting in his capacity as Deputy Vice-Chancellor.

1. INTRODUCTION

1.1. UPES is an innovative institution offering industry-focused specialized graduate,

post graduate and doctoral programs in key areas such as energy, infrastructure,

transportation, information technology and legal process.

1.2. Wits University is an internationally recognised university that contributes to

the global knowledge economy and local transformation through generating high

level, scarce skills and innovative research. The University is a research and

teaching institute and possesses particular skills and expertise in the field of

fracture behaviour of nano-strengthened hybrid composites ("the Field"). The

University is composed of five faculties, one of them being the Faculty of

Engineering and the Built Environment.

1.3. In the course of their respective missions and activities, the Parties are

interested in jointly collaborating in research projects and activities of common

interest.

1.4. The Parties aim to promote their future collaboration by means of the execution

of this Collaboration Framework Agreement in accordance with the terms and

conditions set out below.

UPES /Wits Framework Collaboration Agreement FINAL 24/07/2015

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2. PURPOSE

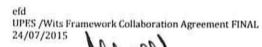
- 2.1. The purpose of this Agreement is to establish the terms and conditions under which the Parties shall jointly collaborate in developing and coordinating the projects or activities in which both are interested to boost their scientific research and academic excellence.
- 2.2. The collaboration shall consist of joint agreements in specific research projects or research lines, targeted internships and training activities, doctoral or postdoctoral programs, visits and sabbatical stays of researchers, or any other activity agreed between the Parties in the context of this Agreement and duly regulated in writing as it arises.

3. DEFINITIONS

Unless the context clearly indicates otherwise, the following terms will bear the following meanings:

3.1.	"Agreement" or							
	"Collaboration	this collaboration framework agreement together						
	Framework Agreement"	with all annexes and appendices hereto;						

- 3.2. "Background Intellectual all Intellectual Property rights in existence before Property" the Signature Date, as well as Intellectual Property developed by a Party to this Agreement after the Signature Date, and which does not fall within the definition of Foreground Intellectual Property;
- 3.3. "Business Day" any day which is not a Saturday, Sunday or official public holiday in both South Africa and India;
- 3.4. "Exploitation" putting Foreground Intellectual Property to commercial use/implementation:
- 3.5. "Foreground Intellectual Intellectual Property arising directly out of the Property" implementation of this Project or activity and which falls within the course and scope of the Project or





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activity;

3.6.	"Intellectual Property" or "IP"	intellectual capital in the form of any and all technical or commercial information, including specifications and formulae; know-how, data, systems and processes; production methods; trade secrets; undisclosed inventions, financial and marketing information; as well as registered or unregistered intellectual property in the form of patents, trademarks, designs, and copyright in any works, including literary works or computer software programs;
3.7.	"IPR-PFRD Act"	collectively, the South African Intellectual Property Rights from Publicly Financed Research and Development Act, 2008 (Act 51 of 2008) and its Regulations;
3.8.	"Main Agreement"	this agreement, excluding the annexes and appendices;
3.9.	"Material"	material exchanged between the Parties for the execution of a Project and activity;
3.10.	"Party"	UPES or Wits, as determined by the context;
3.11.	"Personnel"	a Party's officials, employees, consultants, contractors, students and researchers;
3.12.	"Project"	a joint project or activity undertaken in terms of this Agreement, and detailed in a Project Agreement as per the call / announcement of development of joint proposal/s;
3.13.	"Project Agreement"	a contract signed by the Parties substantially in the format specified in Annex 1 of this Agreement, and annexed to this Agreement;



3.14. "Publication"

any method, whether written, oral or visual, or in electronic / digital format by which information is disclosed to persons and entities other than the Parties to this Agreement and other than to third parties bound to the Parties under binding and enforceable confidentiality agreements;

3.15. "Results"

results, whether patentable or not, such as experimental data, formulae, software, creations, discoveries, know-how, information and/or inventions obtained or developed directly by the Parties in the performance of a Project;

3.16. "Rules and Regulations"

each Party's internal policies, directives, rules and regulations;

3.17. "Signature Date"

the date on which this Agreement is signed by the last Party to do so:

3.18. "University" or "Wits"

the University of the Witwatersrand, Johannesburg, a public higher education institution recognised as such in terms of the Higher Education Act 101 of 1997, duly represented by Professor Tawana Kupe, acting in his capacity as Deputy Vice-Chancellor; and

3.19. "UPES"

the University of Petroleum and Energy Studies, (UPES) was established through UPES Act, 2003 of the State Legislature of Uttarakhand. (Maintained by the University Grant Commission, under section 2 (f)) of UGC Act 1956).

4. INTERPRETATION

4.1. In this Agreement:

4.1.1. an expression which denotes -



- 4.1.1.1. any gender includes the other genders;
- 4.1.1.2. a natural person includes a juristic person and vice versa;
- 4.1.1.3. the singular includes the plural and vice versa; and
- 4.1.1.4. a Party includes a reference to that Party's successors in title and assigns allowed at law:
- 4.1.2. the clause headings appearing in this Agreement are for reference purposes only and will not affect the interpretation of the subject matter of this Agreement;
- 4.1.3. the annexes to this Agreement form an integral part of the Agreement and will be read as if incorporated herein, provided that if there is any conflict between the body of the Agreement and the annexes the meaning contained in the body of the Agreement will take precedence, unless the context expressly indicates otherwise;
- 4.1.4. any reference to any agreement, annex or schedule will be construed as including a reference to any agreement, annex or schedule amending or substituting that agreement, annex or schedule;
- any word or expression related to a word or expression defined in this Agreement bears a corresponding meaning;
- 4.1.6. any reference to the provisions of law and any similar reference of general application will be construed to include both legislation and the common law, and any reference to legislation includes any statute, any regulations passed under any statute, as well as any public notice, ruling or similar legislative instrument passed or approved by a relevant authority with the requisite authority;
- 4.1.7. save where specifically provided otherwise, references to statutory provisions are to be construed as references to those provisions as amended or re-enacted or as their application is modified by other provisions (whether before or after the Signature Date) from time to



time and will include any provisions of which they are re-enactments (whether with or without modification);

- 4.1.8. the words "include" and "including" mean "include without limitation" and "including without limitation". The use of the words "include" and "including" followed by a specific example or examples will not be construed as limiting the meaning of the general wording preceding it;
- 4.1.9. wherever provision is made for the giving or issuing of any notice, application, submission, request, decision, consent, permission, acceptance, agreement, expression of satisfaction, endorsement, approval, certificate, instructions or determination by any person, unless otherwise specified, such notice, decision, consent, permission, acceptance, agreement, expression of satisfaction, endorsement, approval, certificate, instruction or determination must be in writing and the words "notify", "apply", "submit", "request", "decide", "consent", "permit", "accept", "agree", "endorse", "approve", "certify", "instruct" or "determine" and other related expressions are to be construed accordingly;
- 4.1.10. references to materials, information, data and other records are to materials, information, data and other records whether stored in electronic, written or other form;
- 4.1.11. when any number of days is prescribed, it will be calculated exclusively of the first and inclusively of the last day unless the last day falls on a day which is not a Business Day, in which case the last day will be the first Business Day thereafter;
- 4.1.12. where figures are referred to in numerals and in words, if there is any conflict between the two, the words will prevail.
- 4.1.13. expressions defined in this Agreement will bear the same meanings in schedules or annexes to this Agreement which do not themselves contain their own definitions.
- 4.2. If any definition contains a substantive provision conferring rights or imposing obligations on a Party, notwithstanding that it is only in the definition clause,

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effect will be given to it as if it were a substantive provision in the body of the Agreement.

- 4.3. Each Party must ensure that any decision, determination, instruction, inspection, examination, testing, consent, approval, expression of satisfaction, acceptance, agreement, exercise of discretion (whether sole or otherwise) or similar act required by it from another Party in respect of this Agreement must be applied for or requested promptly;
- 4.4. Whenever this Agreement provides for approvals, consents or expressions of satisfaction by any one of the Parties, that Party may not unreasonably withhold or delay that approval, consent or expression of satisfaction.
- 4.5. The expiry or termination of the Agreement will not affect such of the provisions of the Agreement as expressly provide that they will operate after any such expiry or termination or which of necessity must continue to have effect after such expiry or termination, notwithstanding that the clauses themselves do not expressly provide for this.
- 4.6. The rule that an agreement will be interpreted against the party who drafted it will not apply to this Agreement.

5. DURATION

- 5.1. This Agreement will come into effect on the Signature Date and, subject to 11.1, will remain in force for three (3) years.
- 5.2. Nothing contained in this Agreement will prevent the Parties from terminating or modifying the duration of this Agreement at any time by agreement.
- 5.3. Subject to 11, any Projects in progress at the time of termination or expiry will continue to be subject to this Agreement and the respective Project Agreement/s until their completion and the Parties' rights and obligations in terms of the Project Agreement/s and this Agreement will remain unaffected.

6. PROJECT AGREEMENTS

- 6.1. Any specific project or activity to be carried out by the Parties under this Agreement will be negotiated and formalised in a separate Project Agreement.
- 6.2. Each Project Agreement will contain sufficient detail to enable the Parties to carry out the Project and will substantially conform to the model form provided as Annex I.
- 6.3. In the event of a conflict between the terms and conditions of the Main Agreement and those of a Project Agreement, the terms and conditions of the Main Agreement will prevail, unless the Project Agreement specifically provides for the amendment or deletion of a particular provision of the Main Agreement.

7. EXECUTION OF THE PROJECTS

- 7.1. The execution of the Projects will follow the schedules and descriptions enclosed in the respective Project Agreements.
- 7.2. The Parties will conduct their activities under the Project Agreement/s in compliance with applicable laws and their own standards and procedures.
- 7.3. Both Parties will contribute the Personnel, resources, equipment, premises and supplies needed for the Project, and will assume the management, coordination and/or control of those activities for which each Party is responsible, unless otherwise agreed.
- 7.4. The costs incurred by each Party in connection with the Projects will be for the account of such Party, unless otherwise agreed.
- 7.5. Any goods and resources made available by the Parties for the execution of the Projects will remain the property of the Party that provided them, unless otherwise agreed.
- 7.6. Neither of the Parties will subcontract the execution of its obligations hereunder to third parties without the prior authorisation of the other Party.

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8. EXCHANGE OF PERSONNEL

- 8.1. The Parties may agree to exchange Personnel from one institution to another, which will consist of a visit for a limited period of time for the exclusive purpose of carrying out the joint Project agreed between the Parties. The terms and conditions under which the Personnel will collaborate with the other institution will be specified in a separate agreement substantially conforming to the model provided as Annex I.
- 8.2. If applicable, the visiting Personnel will continue to be employed by their institution of origin, unless otherwise agreed in the Project Agreement.
- 8.3. The visiting Personnel will be bound to comply with the internal regulations (including safety and work risk prevention regulations) of the institution they are visiting.

9. RESEARCH / ACTIVITY LIAISON COMMITTEE

- 9.1. The Parties will establish a Research / Activity Liaison Committee ("the Committee") to coordinate and monitor the execution of each Project. The Parties record that at the Signature Date the Research / Activity Liaison Committee comprises the following representatives of each Party:
 - 9.1.1. UPES:

Dr. S.J.Chopra, Chancellor

Dr. Jitendra K.Pandey, Assistant Vice President-Research

9.1.2. Wits:

Deputy Vice Chancellor (Research and Postgraduate

Affairs)

Dr. Jacob Muthu - Senior Lecturer

Director: Research Development

Head of School: Mechanical, Industrial and Aeronautical

Engineering

- 9.2. Each Party has the right to remove and replace any of its members on the Committee at any time on notice to the other Party.
- 9.3. The Committee will have access to all information available on the Project/s, and will be entitled to agree on any modifications and amendments to the Project/s as deemed appropriate from time to time. Such modifications must be fully



- documented and are subject to approval in accordance with each Party's Rules and Regulations.
- 9.4. The presence of at least one representative of each of the Parties will constitute a quorum for any Committee meeting. In the absence of a member, he/she may be represented by an alternate (proxy) who will be entitled to the same rights and privileges as the principal member.
- 9.5. The Committee will meet not less than once annually but more frequently if agreed by the Parties.
- 9.6. A chairperson will be appointed at the first Committee meeting and the meetings will thereafter be chaired alternately by UPES and Wits.
- 9.7. Decisions of the Committee will be taken by consensus. However, any such decisions will be subject to the approval thereof by the respective Parties' senior management, in line with the prevailing approval frameworks of the Parties. To this end it is specifically recorded that it will be and remain the responsibility of the individual members of the Committee to ensure that such approval is obtained and documentary proof thereof can be requested by either Party at any time.
- 9.8. The Committee will decide on the time, place and modus operandi of its meeting/s. If agreed to by all members on an ad hoc basis, and in advance, a teleconference or video-conference will suffice in respect of a specific a Committee meeting.
- 9.9. Each notice of a meeting of the Committee will include an appropriate agenda for the meeting, which agenda will be made available to all the members of the Committee at least 14 (fourteen) days before the scheduled meeting date.
- 9.10. The Committee will appoint a secretary who will keep full minutes of each and every meeting and distribute same to the individual members of the Committee within one week after every such meeting.



- 9.11. The functions of the Committee will include:
 - 9.11.1. submission of proposals for collaboration in scientific fields of common interest, collaboration in the development of Projects or joint activities and (subject to 9.7 and 16.1) resolving or clarifying issues that may arise in the execution of this Agreement and the Project Agreements.
 - 9.11.2. overseeing the process of selection of Projects reporting to the Parties thereon;
 - 9.11.3. reviewing reports on the Projects thereon;
 - subject to 10, consideration and seeking advice on relevant matters relating to Intellectual Property;
 - 9.11.5. approval and certifying of minutes of a previous Committee meeting;
 - dealing with further matters expressly referred to the Committee under this Agreement or a Project Agreement.

10. INTELLECTUAL PROPERTY

- 10.1. As a general rule, nothing in this Agreement or a Project Agreement will be construed as an assignment or transfer of any IP rights belonging to a Party if not expressly granted pursuant to such Agreement. The Parties undertake to respect each other's ownership of those rights at all times.
- 10.2. Unless otherwise agreed in the Project Agreement, ownership of IP rights over Results obtained in the development of a Project will belong to the Parties pro rata to their respective contribution to the Project Results.
- 10.3. Protection of IP rights will include observation at all times of the rights of the inventors or authors, expressly including the right to be mentioned as such in patent applications.
- 10.4. The ownership of and all rights in and to any Background Intellectual Property will be and remain vested in the Party who initially owned and/or developed the same and such Party will have the exclusive right to the commercial use of such



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Background Intellectual Property. Each Party, however, grants the other (subject to the IP rights being free of restrictions imposed by a third party) a royalty-free, non-exclusive license, for the duration of the Project, to use its Background Intellectual Property for non-commercial research purposes if needed for the furtherance of the Project.

- 10.5. Foreground Intellectual Property that is solely developed by one Party will be exclusively owned by that Party ("Sole IP").
- 10.6. Foreground Intellectual Property that is jointly developed by the Parties will be jointly owned by the Parties ("Joint IP").
- 10.7. Each Party undertakes to make prompt disclosure of the development of any Foreground Intellectual Property to the Committee. The decision as to when, where and by whom patent applications relating to Joint IP will be filed, as well as the extent of each Party's contribution towards legal fees and concomitant costs reasonably to be incurred in the process of the filing and prosecution of such applications, will be taken by the Committee, subject to 9.7, unless agreed otherwise in an agreement envisaged in clause 10.9.
- 10.8. Subject to 9.7, the Committee will decide, on a case-by-case basis, by no later than the expiry or termination of this Agreement, whether or not Exploitation of any Joint IP should be pursued.
- 10.9. If, subject to 9.7, the Committee decides that Exploitation of Joint IP should be pursued, the Parties will embark upon good faith negotiations with each other with a view to concluding as soon as possible a formal written agreement (a "Joint Ownership Agreement"), which agreement will set out, to the extent possible and necessary, the licensed rights to the required Background Intellectual Property; the method of Exploitation; the obligations of the Parties in regard thereto; and the sharing of costs and benefits between the Parties in the ratios agreed upon by the Parties, taking into account each Party's contribution to the development of the Joint IP. No Exploitation of Joint IP will commence until the Joint Ownership Agreement contemplated in this clause 10.9 has been executed.



- 10.10. The Parties agree to cooperate in all ways necessary to facilitate the protection, maintenance, defence and exploitation of the Joint IP rights in Results.
- 10.11. The Parties acknowledge that -
 - 10.11.1. Foreground Intellectual Property created solely or jointly by Wits pursuant to this Agreement will have been created with support from the South African Government, and is subject to the requirements of the IPR-PFRD Act; and
 - 10.11.2. the South African Government has certain rights to the Foreground Intellectual Property described in 10.11.1 in terms of sections 11(1)(e), 11(2) and 14 of the IPR-PFRD Act.

11. BREACH AND TERMINATION

- 11.1. If a Party ("the Defaulting Party") breaches any material term of this Agreement and fails to remedy such breach within 30 (thirty) days of receipt of written notice requiring it to do so, the Aggrieved Party will be entitled without further notice, in addition to any other remedy available to it at law or under this Agreement, including obtaining an interdict, to:
 - 11.1.1. cancel this Agreement; or
 - 11.1.2. claim specific performance,

in either event without prejudice to the Aggrieved Party's right to claim damages; provided that if the Defaulting Party has committed a material breach on at least 2 (two) occasions within the preceding year in respect of which the Aggrieved Party gave the Defaulting Party notice to remedy as contemplated in this clause 11.1, the Aggrieved Party will be entitled, by written notice to the Defaulting Party, to cancel this Agreement summarily without further need to give notice to remedy and exercise its right to claim damages.

11.2. If any dispute arises as to whether any breach is a material breach, or whether the Defaulting Party has failed to remedy a breach within the period specified, such dispute will be determined by arbitration in accordance with clause 16.2.



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- 11.3. The provisions of 11.1 and 11.2 will apply mutatis mutandis to the breach by either Party of a Project Agreement, save that this Agreement will not terminate solely by reason of the termination of a Project Agreement.
- 11.4. Either Party will be entitled to give the other Party thirty (30) days' notice of termination of a Project Agreement if it is reasonably of the opinion that the Project in question is scientifically or technically unviable. In such circumstances the Parties will be entitled to reimbursement for costs incurred up to the date of termination of the Project Agreement as well as expenses reasonably incurred in advance in respect of activities and services to be performed after the date of termination.
- 11.5. The expiry or termination of this Agreement or a Project Agreement will not affect the Parties' existing IP rights under this Agreement or the Project Agreement.

12. CONFIDENTIALITY

- 12.1. Each of the Parties ("the Recipient") agrees to treat (a) any and all information which is disclosed by, or acquired from, the other Party ("the Disclosing Party") either orally, electronically, visually, or in a document or other tangible form and which is by nature confidential or is identified as confidential by the Disclosing Party; (b) experimental data, know-how, reports and any other information obtained, made or developed by the Parties in connection with this Agreement and/or any Project Agreement; and (c) the Projects and Results (all comprising "Confidential Information") with all caution reasonably necessary and practicable to prevent its disclosure to persons other than its Personnel with a need to know and who are bound by like terms of confidentiality.
- 12.2. Each Party warrants that all such Personnel will be obliged to maintain the confidentiality of the Confidential Information disclosed to it and to use it only in accordance with the provisions of this Agreement and/or a Project Agreement, and each Party will use all reasonable endeavours to avoid and act against non-compliance by its Personnel.
- 12.3. Nothing contained in this agreement will prohibit or limit the Recipient's disclosure of Proprietary information:

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- 12.3.1. which at the time of disclosure is published or otherwise generally available to the public;
- 12.3.2. which after disclosure to the Recipient is published or becomes generally available to the public, otherwise than through any act or omission on the part of the Recipient;
- 12.3.3. which the Recipient can show was in its possession at the time of disclosure and which was not acquired directly or indirectly from the Disclosing Party;
- 12.3.4. rightfully acquired from a third party who did not obtain it under obligations of confidentiality to the Disclosing Party; or
- 12.3.5. which the Recipient is obliged to disclose in terms of an order of court, subpoena or other legal process.
- 12.4. The obligations assumed under this clause 12 will remain in full force and effect not only during the term of this Agreement and/or the Project Agreement to which such Confidential Information applies, but also for as long as the Confidential Information is secret and confidential.

13. PUBLICATION

- 13.1. The Parties will use their best efforts to Publish the Results obtained in the joint Projects, and agree to acknowledge authors and inventors according to applicable law and commonly accepted conventions for scientific publications.
- 13.2. Notwithstanding the foregoing, prior to any disclosure of any Results, the disclosing Party will submit to the other Party, at least thirty (30) days in advance, a copy of the proposed Publication. The requested Party will respond within those thirty (30) days prior to Publication, if it considers that the protection of the Results might be threatened and/or its academic or commercial interests are likely to be affected by the proposed Publication. The lack of any reply in such period will be deemed a tacit authorisation for Publication. Also, the requested Party may require the disclosing Party to omit certain Confidential Information and/or to delay Publication to allow proper protection of the



6/3/ TK Results. Such delay will be sufficiently motivated in writing and will not exceed thirty (30) additional days.

13.3. The involvement of the Parties will be duly acknowledged in any Publication.

14. LIABILITY

- 14.1. Each Party will indemnify and hold the other Party (including the other Party's respective Personnel) harmless from and against any and all suits, claims, demands, costs, damages, expenses, losses or injuries to persons or property caused by the breach of this Agreement or a Project Agreement, wilful or negligent act or omission of the indemnifying Party and its Personnel during the performance of any tasks arising out of this Agreement or any Project Agreement.
- 14.2. Each Party warrants to the other that it has insured itself against its liability in law for the acts and omissions of persons acting on its behalf and its Personnel are insured during the course and scope of their registered courses and within the scope of that Party's business where fault can be attributed to that Party or its Personnel. The maximum liability of the Parties in respect of any cause resulting or arising from or in connection with any act or omission in terms of this Agreement or a Project Agreement will be limited, whether for a single or multiple events, to the extent of the insurance of each Party.

15. MISCELLANEOUS MATTERS

15.1. Address for correspondence

15.1.1. Any correspondence (other than a notice contemplated in 15.2) in connection with this Agreement may be addressed:



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15.1.1.1. in the case of Wits, to:

Physical Address

c/o Dr Robin Drennan Research Development Office 10th Floor, Senate House 1 Jan Smuts Avenue Braamfontein Johannesburg Republic of South Africa

Postal Address

c/o Dr Robin Drennan Research Development Office 10th Floor, Senate House Private Bag 3 Wits 2050 Republic of South Africa

Fax no: +27 11 717 1265

Electronic mail address: Jacob.Muthu@wits.ac.za with copies to Robert.Reid@wits.ac.za

marked for the attention of the Director: Research Development

15.1.1.2. in the case of UPES, to:

Physical Address

Dr. S., Chopra, Chancellor,

University of Petroleum amd Energy Studeis,
96, Munerica Enclave
New Delhi
110067
INDIA
Postal Address University of Petroleum and Energy Studeis
Energy Acres
P.O. Bidholi Via-Prem Nagar,
Dehradun-248007
INDIA

Fax.no: +91-135-2776095 / 2776090

Electronic mail address: chancellor@ddn.upes.ac.in

marked for the attention of the jkpandey@ddn.upes.ac.in

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UPES /Wits Framework Collaboration Agreement FINAL
24/07/2015

eld TK

with copies to chancellor@ddn.upes.ac.in

- 15.1.2. The notice will be deemed to have been duly given:
 - 15.1.2.1. on delivery, if delivered by hand or by registered post to the Party's physical address set out in 15.1.1. For the purposes of this clause delivery by registered post in South Africa will be deemed to have been effected ten (10) Business Days after posting;
 - 15.1.2.2. on despatch, if sent to the Party's then fax number or electronic mail address set out in 15.1.1 and confirmed by registered letter posted no later than the next Business Day;

unless the sender is aware, at the time the notice would otherwise be deemed to have been given, that the notice is unlikely to have been received by the addressee through no act or omission of the addressee.

- 15.1.3. A Party may change its address for the purposes of this clause 15.1 by notice to the other Party.
- 15.1.4. Notwithstanding anything to the contrary herein contained a written notice or communication actually received by a Party will be an adequate written notice or communication to it notwithstanding that it was not sent to or delivered at its chosen address in terms of 15.1.1.
- 15.1.5. All notices and correspondence in connection with this Agreement will be in the English language.

15.2. Address for Service of Legal Documents

15.2.1. The Parties choose the following physical addresses at which documents in legal proceedings in connection with this Agreement may be served (i.e. their domicilia citandi et executandi):

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UPES /Wits Framework Collaboration Agreement FINAL
24/07/2015

15.2.1.1. The University:

Office of the Director: Legal Services 5th Floor, Senate House 1 Jan Smuts Avenue Braamfontein Johannesburg Republic of South Africa

15.2.1.2. UPES:

2nd Floor, 210,0khla Industrial Estate, Phase III, New Delhi-110020 India

Tel: +91-11-41730151/152/153,

Fax: +91-11-41730154 Mail: anu.sharma@upes.ac.in

15.2.2. A Party may change its address for this purpose to another physical address at which legal process can be served, by notice to the other Party.

15.3. Entire Agreement

This Agreement contains all the express provisions agreed on by the Parties with regard to the subject matter of the Agreement and supersedes all prior written or oral agreements or communications with respect thereto.

15.4. No Representations

Neither Party may rely on any representation which allegedly induced it to enter into this Agreement, unless the representation is recorded in this Agreement.

15.5. Variation, Cancellation and Waiver

No addition to or variation of any clause of this Agreement (including this clause 15.5) or a Project Agreement, consensual cancellation or novation of this Agreement or a Project Agreement and no waiver of any right arising from this Agreement or a Project Agreement or its breach or termination will be of any force or effect unless reduced to writing and signed by both Parties or their duly authorised representatives.

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24/07/2015

15.6. Indulgences

If either Party at any time breaches any of its obligations under this Agreement or a Project Agreement, the other Party ("the Aggrieved Party"):

- 15.6.1. may at any time after that breach exercise any right that became exercisable directly or indirectly as a result of the breach, unless the Aggrieved Party has expressly elected in writing or by clear and unambiguous conduct, amounting to more than mere delay, not to exercise the right. In particular, acceptance of late performance will be provisional only, and the Aggrieved Party may still exercise that right during that period;
- 15.6.2. will not be estopped (i.e. precluded) from exercising its rights arising out of that breach, despite the fact that it may have elected or agreed on one or more previous occasions not to exercise the rights arising out of any similar breach or breaches.

15.7. Successors in title

Without prejudice to any other provision of this Agreement, any successor-in-title, including any executor, heir, liquidator, judicial manager, curator or trustee, of a Party will be bound by this Agreement.

15.8. Severability

If any provision of this Agreement is invalid, unenforceable or illegal, the remaining provisions of this Agreement will be deemed to be severable therefrom and will continue in full force and effect unless such invalidity, unenforceability or illegality goes to the root of this Agreement.

15.9. Counterparts

This Agreement may be executed in any number of counterparts and by the Parties hereto on separate counterparts, each of which when executed and delivered will be an original and each of the counterparts will together constitute one and the same instrument.

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15.10. Costs

Each Party will bear its own costs relating to the negotiation, preparation and signature of this Agreement.

15.11. Assignment

- 15.11.1. The Parties will not assign or subcontract, whether totally or partially, the tasks, rights and obligations assumed in this Agreement or in any Project Agreement, without the prior agreement of the other Party.
- 15.11.2. If a subcontracting agreement is authorised, it will be compatible with the terms and conditions of this Agreement, in particular as regards IP rights.

15.12. Governing law

This Agreement will be governed by and construed under the laws of the Republic of South Africa.

16. DISPUTES

All disputes between the Parties will be determined in accordance with the provisions of this clause 16.

16.1. Informal resolution

Within a period of thirty (30) days after the dispute date the members of the Research Liaison Committee will meet to discuss the dispute and will endeavour to resolve the dispute amicably and each Party undertakes at such meeting to make full disclosure to the other of all information and documentation relating to the dispute.

16.2. Arbitration

If the Research Liaison Committee is unable to resolve the dispute within a period of thirty (30) days after it has been referred to them, either Party may refer the dispute for arbitration in accordance with the provisions of this clause. Save in the circumstances described in 16.3, any dispute arising out of this

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Agreement or its interpretation, both while in force and after its termination, will, if arbitrable in law, be finally settled under the Rules of Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with the said Rules. The award of the arbitration will be final and binding upon the Parties.

16.3. Interim Relief

Nothing in this clause 16 will preclude any Party from seeking interim relief from any competent court having jurisdiction pending the institution of any arbitration proceedings in terms of this clause 16.

16.4. General

- 16.4.1. The successful Party will, in each of the methods of dispute resolution provided for above, be entitled to be awarded a full indemnity for all the costs reasonably incurred by that Party, including attorney and own client costs.
- 16.4.2. The provisions of this clause 16 will survive the termination of the Agreement.



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Signed on be	half of the University:	- 1Cape
Name:	Prof. T. Kupe	
Designation:	DUC	
Date:	29/07/2015	
Place:	Johgansburg	
Witness:	CATO A	
Name:	E. Flack Davison	7
Signed on he	half of UPES:	For University of Berryleum & Energy Studies
Name:		Registrar
Designation:	ABILLY SHARMA REGISTRAL	
Date:		
Place:	UPES-Dehradun	
Witness:		
Name:		

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ANNEX I

SPECIFIC PROJECT AGREEMENT MODEL FORM

CONTENTS

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4.	PERSONNEL	
5.	FINANCIAL PROVISIONS/ CONSIDERATION	
6.	PROJECT TERM	
7.	INTELLECTUAL PROPERTY	
1.	APPENDIX A: Project Specification PARTIES	
	1.1. THE UNIVERSITY OF PETROLEUM AND ENERGY STUDIES - ("UPES" represented by [], acting in his/her capac []; and	
	1.2. THE UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG, through the acting through the Faculty of Engineering and the Environment, the School of Mechanical, Industrial and Aerona Engineering ("Wits"), duly represented by [], ac [his/her] capacity as [].	Built utical
	COLUMN OF THE OF	

2. STATUS OF THIS PROJECT AGREEMENT

2.1. In terms of clause 6 of the Collaboration Framework Agreement entered into on [Signature Date] the Parties hereby enter into this Project Agreement in

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- accordance with the terms and conditions contained herein, which complement/add to those contained in the Main Agreement.
- 2.2. All terms defined in the Main Agreement will bear the same meanings in this Project Agreement.

3. PROJECT

- The Project will have the following title: [Project name] ("the Project").
- The Project consists of: [Project summary/brief general description].
- 3.3. Appendix A to this Project Agreement contains the Project Specification, which includes the Project schedule of activities and technical specifications.

4. PERSONNEL

- 4.1. Personnel (researchers or others) developing the Project on behalf of KSR are the following:
 - (a) Name / Position
 - (b) Name / Position
- 4.2. Personnel (researchers or others) developing the Project on behalf of Wits are the following:
 - (a) Name / Position
 - (b) Name / Position

5. FINANCIAL PROVISIONS/ CONSIDERATION

[Specify financial contributions, fixed and variable payments or the distribution of costs and benefits]

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6. PROJECT TERM

The Project will be carried out over a period of *[term]*, as from the date of the signature of this Project Agreement by both Parties.

7. INTELLECTUAL PROPERTY¹

7.1. The terms and provisions of the Collaboration Framework Agreement will apply, with the following additions or modifications:

7.1.1. IP rights on Results

Results will be the property of (a) [XXX] <u>OR</u> (b) the Parties according to the following share: X% UPES and Y% Wits.

7.1.2. Protection of Results

[XXX] will be responsible for the protection, maintenance and defence of the IP rights in Results. The costs of such activities will be borne by (a) [XXX] OR (b) the Parties according to the share specified in 7.1.1.

7.1.3. Exploitation of Results

[XXX] will be in charge of the exploitation and commercialization of the Results and/or the IP rights in them. However, any agreement entered into with third parties with regard to Joint IP will be made under [YYY]'s consent.

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¹ NB. More detailed provisions are required in the individual Project Agreements regarding the Parties' respective intellectual property rights. Accordingly clause 7 is to be viewed for purposes of a template only.

7.2. [XXX] will collect and distribute any and all revenues accrued from their exploitation, which distribution will equal the ratio of ownership of the Rights, except if otherwise agreed between the Parties. Further details regarding Joint IP rights in Results, their protection and exploitation will be agreed between the Parties prior to any commercial use and formalized in writing in the corresponding Joint Ownership Agreement.

Signed on behalf of the University:	There
Name:	· Jerrina I
Designation:	
Date:	
Place:	
Witness:	
Name:	-
Signed on behalf of UPES:	- Andrew Control of the Control of t
Name:	A CONTRACTOR OF THE PARTY OF TH
Designation:	L'
Date:	
Place:	
Witness:	
Name:	

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APPENDIX A PROJECT SPECIFICATION

Background and Justification of the Project/Activity

(Experimental) Plan and Objectives

Contributions of the Parties

Schedule

Aprasis

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INTERNATIONAL AGREEMENT ON PEDAGOGICAL COOPERATION

BETWEEN:

The University of Lorraine, a professional, cultural and scientific public institution, founded as a large scale institution, with its official address at 34 Cours Léopold – CS 25233 – 54052 Nancy Cedex France, SIRET N° 130 015 506 00012, represented by its currently officiating President, Mr. Pierre Mutzenhardt, which expression shall mean and include its successors and permitted assigns of the one Part;

and in particular its subsidiary unit: ENSEM, at 2 avenue de la Forêt de Haye 54516 Vandoeuvrelès-Nancy, represented by its Director, Mostafa FOURAR, an engineering school member of the Collegium Lorraine INP, directed by Mr Yves GRANJON which expression shall mean and include its successors and permitted assigns of the one Part;

hereinafter referred to as "UL"

AND

The University of Petroleum and Energy Studies a university established under the University of Petroleum and Energy Studies Act, 2003, enacted by the State of Uttarakhand, having its Campus at Energy Acres, P.O. Bidholi via Prem Nagar, Dehradun through its Registrar, Mr. Abhay Sharma, which expression shall mean and include its successors and permitted assigns of the other Part;

hereinafter referred to as "UPES"

The UL and UPES hereinafter each individually referred to as the "Party" (and collectively as the "Parties").



PREAMBLE

The purpose of this agreement is to facilitate and intensify academic exchange between the Parties.

IT BEING UNDERSTOOD THAT:

Clause 1: Purpose

The Parties shall deploy their cooperative efforts in the following areas:

- Collaborative research projects/programmes for education
- Exchange programmes for students

Clause 2: Fields

The purpose of this agreement consists in defining the precise boundaries of collaboration between the Parties in the field of engineering.

The pedagogical programme, together with financial elements, is detailed in Appendix 1.

Clause 3 - Coordination

As part of this agreement,

- the UL acts on behalf of its subsidiary unit:
 ENSEM, at 2 avenue de la Forêt de Haye 54516 Vandoeuvre lès Nancy, represented by its Director, Mostafa FOURAR
- UPES represented by its registrar

For the application of this agreement,

- the UL appoints Miss Stéphanie Gallaire as Manager of the Pedagogical Programme;
- UPES appoints Dr. Ugur GUVEN as the Manager of the Pedagogical Programme.

hereinafter referred to collectively as the "Managers".

The Managers shall consult with each other whenever they believe it necessary and at least once a year for ensuring the application of this agreement. Each year, they shall draw up a report on the actions carried out and/or in progress, which shall be communicated to the university authorities of each Party.



Clause 4 - Appendices to this Agreement

This agreement contains 1 Appendix with which the Parties undertake to comply. This Appendix forms an integral part of this agreement and shall be subject to the same procedures for approval.

Clause 5 - Financial arrangements

The Parties shall make every effort to facilitate the carrying out of the Pedagogical Programme as described in the Appendix 1 to the extent of their capabilities and within the framework of the regulations in force in the two respective countries the Parties, and in particular the subsidiary units concerned, shall make every effort to obtain the resources necessary for carrying out the relevant actions provided for under this agreement.

Methods for financing the actions carried out under this agreement shall be communicated to the supervisory authorities for information and/or approval, depending upon the procedures currently in force in each country.

Clause 6 - Amendments

Any modification to this agreement or any of its Appendices shall be subject to the prior written agreement duly signed by the representatives of both the Parties by means of an amendment.

Clause 7 - Validity

This agreement shall be agreed for an initial period of 5 (five) years. Exchange under this agreement can be done only for similar duration programs at the other institute. It shall come into force on the date on which it is signed by the Parties.

It is renewable by means of an amendment mutually agreed by the Parties in accordance with the rules particular to each Party.

During the application of this agreement, the agreement may be terminated at any time by either of the Parties by means of a recorded delivery letter with acknowledgement of receipt complying with the requirement of 6 months' prior notice, and subject to the completion of currently operating mobility programmes or courses.

This agreement is drawn up in 4 original copies, of which 2 shall be drawn up in French and 2 in English, the two versions having equal validity. They shall be identical in terms of spirit and interpretation.



Clause 8 - Counterparts

This Agreement may be executed in two or more counterparts (including by facsimile or other electronic transfer like e-mail), each of which shall be deemed to be an original as against any party whose signature appears thereon, but all of which together shall constitute one and the same instrument.

For EN	SEM, L	Iniversit	v of Larr	aine
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For the President, by delegation,

Yves Granjon,

Director of the Collegium Lorraine INP

VER GRANJON

For the University of Petroleum and Energy Studies

Abhay Sharma, Registrar of the University of Petroleum and Energy Studies

Date:

Date:

Mr Mostafa FOURAR, Director of ENSEM

> Recteur Mostafa FOURAR Directeur de l'Ecole Nationale Supérieure d'Electricité et de Mécanique

Date:



Appendix 1: Pedagogical Programme for student mobility and financial details

CLAUSE 1: Objectives

1.1. Objectives of the pedagogical programme

The objective of the present agreement is to enable students from UPES and ENSEM to study as exchange students in the partner institution for one or two semesters.

1.2. Specialist field concerned, level of study, course, degree, number of students concerned, list of topics taught

UPES students pursuing a master and taking part in the exchange shall be able to select courses from the 2nd or 3rd year at ENSEM (4th or 5th year of higher education). Students in 2nd or 3rd year at ENSEM shall be able to select courses from Master's level Year I and Year II courses at UPES.

For approval of the mobility period by their university of origin, ENSEM students must obtain the equivalent of 30 ECTS credits per semester and the equivalent of 20 credits for UPES.

The selection of these modules shall be subject to a learning agreement which shall be validated in advance by a manager or a teacher managing or teaching the degree in the university of origin. On arrival, the students shall deliver this agreement to the student affairs service(s) concerned.

At the end of their mobility period, the students shall be given transcripts containing details of the courses followed, the marks obtained and the relevant credits.

The list of courses available at ENSEM can be found following these links: http://u2l.fr/syllabus-en-nrj

http://u2l.fr/syllabus-en-isn

The list of courses taught in English at ENSEM can be found following this link: http://ensem.univ-lorraine.fr/international/ensem-glance/ensem-school-energy/courses-framework/courses-available-english

The list of courses available at UPES can be found following this link http://www.upes.ac.in/college-wise

CLAUSE 2:Organization

2.1. Location of Courses

UPES students coming at ENSEM shall study in the ENSEM facilities located 2 avenue de la Forêt de Haye, 54516 Vandoeuvre-lès-Nancy.

ENSEM students coming at UPES shall study at UPES, at Dehradun INDIA.

2.2. Method of selecting students (application file, level required, operation and composition of the selection committee etc.)

For participation in the exchange programme, students shall provide evidence of B2 level in the English language if they attend classes in English or carry out projects. A certificate from each University's language department will be sufficient for evidence of English level.

If UPES students attend classes in French at ENSEM they shall provide evidence of B1 level in French.

UPES Students shall send their application file before May 31st to ENSEM.

They shall provide their transcripts translated into French or English, evidence of language level, the list of courses they want to attend at ENSEM and shall be recommended by a professor.

A selection committee composed of the Director of studies, the Director of International Relations and the Heads of the departments where students are applying shall examine the file.

ENSEM students shall send their application file before April 30 to UPES.

ENSEM students will need to fill in the UPES application form and they will need to attach their CV and their transcripts along with a recommendation from their international department for application. Any student applying to UPES should get nominated or approved by ENSEM International Office.

The Parties reserve the right to accept or refuse any application depending on the above mentioned criteria and the number of places available.

2.3. Registration procedures, status of students, registration fees, social security, double registration, student card

Each Party shall via its appropriate student affairs service provide services for student registration and student dossier management for those students accessing education from the partner university.

Payment of registration fees shall be performed at the University of Origin via the appropriate student service.

UPES exchange students will not have to pay tuition fees at ENSEM but will have to pay for social security and additional fees (for sports, photocopies etc..)

Similarly ENSEM students under exchange will not be liable to pay regular semester fee but need to ensure that either they have international medical coverage or they will need to get special medical insurance through student services of UPES.

The students shall pay for their own lodging & boarding. All personal expenses (insurance inter alia third party cover and repatriation, social security, transport, educational equipment, board) shall be payable by the student.

Students in mobility both from the University of Lorraine and from UPES shall subscribe to the regulated social security arrangements of the host country - in France, in particular they shall subscribe to the student social security scheme.

The host University shall issue a student card to the exchange students, valid for the duration of their stay.

2.4. Possible organisation of internships

Internships can be proposed to exchange students following the terms and conditions of each Party.

CLAUSE 3:Undertakings

No financial resources are specifically earmarked to carry out the activities defined in the exchange program. Each Party shall make every effort to obtain the resources necessary for carrying out the relevant actions provided for under this agreement.

The host institution shall make every effort to facilitate the arrival, setting up and integration of exchange students. Exchange students shall be welcomed, oriented, brought support for administrative issues and introduced to teaching methods and procedures in the host institution.







ACCORD INTERNATIONAL DE COOPÉRATION PÉDAGOGIQUE

ENTRE:

L'Université de Lorraine, établissement public à caractère scientifique, culturel et professionnel, créée sous la forme d'un grand établissement, sise34 Cours Léopold – CS 25233 – 54052 Nancy Cedex France, SIRET n° 130 015 506 00012, représentée par son Président en exercice, Monsieur Pierre Mutzenhardt, signifiant et englobant ses successeurs et s'appliquant d'une part

et plus particulièrement, sa composante, l'Ecole Nationale Supérieure d'Electricité et de Mécanique (ENSEM), sise 2 avenue de la Forêt de Haye TSA 60604 54518 Vandoeuvre cedex, représentée par son directeur Monsieur Mostafa FOURAR, une école interne au Collégium LORRAINE INP, dirigé par Monsieur Yves GRANJON signifiant et englobant ses successeurs et s'appliquant d'une part

ci-après désignée « UL»

Et The University of Petroleum and Energy Studies, une université établie en vertu de la loi "University of Petroleum and Energy Studies » de 2003, promulguée par l'état d'Uttarakhand, sise Energy Acres, P.O. Bidholi via Prem Nagar, Dehradun, et représentée par son registraire Mr. Abhay Sharma, signifiant et englobant ses successeurs et s'appliquant d'autre part

ci-après désignée « UPES»

L'UL et UPES étant ci-après désignées individuellement par la « Partie » et collectivement par les « Parties».



PRÉAMBULE

Le but du présent accord est de faciliter et d'intensifier les échanges académiques entre les Parties.

IL EST CONVENU CE QUI SUIT:

Article 1 - Objectif

Les Parties déploient leurs efforts de coopération selon les axes suivants :

- projets/programmes de formation
- programmes d'échanges d'étudiants

Article 2 - Domaines

L'objet du présent accord consiste à définir le périmètre précis de la collaboration entre les Parties dans le domaine de l'ingénierie.

Le Programme pédagogique, accompagné, s'il y a lieu, d'éléments financiers, est précisé dans l'annexe 1.

Article 3- Coordination

Dans le cadre du présent accord,

L'UL agit pour sa composante : ENSEM — Nancy, sise 2 Avenue de la Forêt de Haye TSA 60604 54518 Vandoeuvre cedex, représentée par son directeur, Mostafa FOURAR UPES est représentée par son Régistraire Mr. Abhay Sharma

Pour l'application du présent accord,

- l'UL désigne Stéphanie Gallaire comme Responsable du Programme pédagogique ;
- UPES désigne Dr Ugur Guven comme Responsable du Programme pédagogique.
 ci-après désignés collectivement les « Responsables ».

Les Responsables se consulteront chaque fois qu'ils l'estimeront nécessaire et se réuniront au moins une fois par an pour assurer le suivi du présent accord. Ils dresseront chaque année un bilan des actions réalisées ou/et en cours de réalisation qui sera communiqué aux autorités universitaires de chaque Partie.

Article 4 - Annexes au présent accord

Le présent accord contient une annexe (annexe 1) que les Parties s'engagent à respecter. Cette annexe fait partie intégrante du présent accord et est soumises aux mêmes procédures d'approbation.

Article 5 -Dispositions financières

Les Parties s'efforceront de faciliter la réalisation du Programme pédagogique détaillé en annexe 1. Dans la mesure de leurs moyens et dans le cadre de la réglementation en vigueur dans leurs pays respectifs, les Parties, et plus particulièrement les composantes concernées, s'efforceront notamment d'obtenir les moyens nécessaires à la réalisation des actions menées dans le cadre du présent accord.

Les modalités de financement des actions menées dans le cadre du présent accord seront communiquées aux autorités de tutelle pour information et/ou approbation, en fonction des procédures en vigueur dans chaque pays.

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Article 6 - Modifications

Toute modification du présent accord ou de ses annexes est soumise à l'accord écrit préalable des Parties par voie d'avenant dûment signé par les représentants des deux Parties.

Article 7- Validité

Le présent accord est conclu pour une période initiale de cinq ans.

Les échanges engagés sous le présent accord seront menés sur des programmes de durée similaire au sein de l'institution partenaire.

Le présent accord entrera en vigueur à la date de sa signature par les Parties.

Il est renouve<mark>l</mark>able, par voie d'avenant, d'un commun accord des Parties, et ce conformément aux règles propres à chaque Partie.

En cours d'application, le présent accord pourra être résilié à tout moment par l'une ou l'autre des Parties, par lettre recommandée avec accusé de réception, en respectant un préavis d'une durée de 6 mois, et sous réserve de l'achèvement des formations en cours ou des mobilités en cours.

Le présent acc<mark>ord est rédigé en 4 exemplaires originaux dont 2 seront rédigés en français et 2 en anglais, les deux versions faisant également foi. Ils seront identiques dans leur esprit et leur interprétation.</mark>

Article 8- Exemplaires

Cet accord peut être édité en deux ou plusieurs exemplaires (incluant les versions envoyées par fax et par un autre transfert électronique comme l'e-mail) qui seront chacun considéré comme étant un original par toute Partie dont la signature y est apposée, mais ces copies constituent ensemble un seul et même instrument.

Pour l'ENSEM

Pour le Président de l'UL, et par délégation,

égium Lorraine INP

Yves GRANJON,

Directeur du Collégium Lorraine INP

Yves GRANJON

Date :

Mostafa FOURAR, Directeur de l'ENSEM

Date .

Cteur Mostafa FOURAR Precteur de l'Ecole Nationale Pure d'Electricité et de Mécanique Pour The University of Petroleum and Energy Studies

Mr Abhay Sharma, Régistraire de l'UPES

Date:



Annexe 1 : Programme pédagogique pour la mobilité d'étudiants et éléments financiers

ARTICLE 1 : Objectifs

1.1. Objectifs du programme pédagogique

L'objectif du présent accord est de permettre aux étudiants d'UPES et de l'UL d'effectuer une partie de leurs études dans l'école partenaire pour un ou deux semestres.

1.2. Filière concernée, niveau d'études, cursus, diplôme, nombre d'étudiants concerné, liste des enseignements dispensés

Les étudiants en master à l'UPES prenant part à l'échange pourront sélectionner des cours de niveau master en 2^{ème} ou 3^{ème} année de la formation ingénieur de l'ENSEM. Les étudiants de 2^{ème} ou de 3^{ème} année ENSEM (4ème ou 5^{ème} année d'études supérieures) pourront choisir des cours de niveau master I et II à UPES

Afin de valider leur période de mobilité auprès de leur université d'origine, ils devront obtenir l'équivalent de 30 crédits ECTS par semestre pour l'ENSEM et 20 crédits pour UPES

Les choix de ces modules feront l'objet d'un contrat pédagogique, qui devra être validé en amont par un responsable ou un enseignant du diplôme de l'université d'origine. A leur arrivée, les étudiants devront remettre ce contrat au service de scolarité concerné.

A la fin de leur période de mobilité, les étudiants se verront remettre un bulletin de notes reprenant le détail des cours suivis, les notes obtenues et les crédits correspondants.

La liste des cours disponibles à l'ENSEM est accessible en suivant ces liens: http://u2l.fr/syllabus-fr-nrj

http://u2l.fr/syllabus-fr-isn

La liste des cours enseignés en anglais à l'ENSEM est accessible en suivant ce lien:

http://ensem.univ-lorraine.fr/international/ensem-glance/ensem-school-energy/courses-framework/courses-available-english

La liste des cours disponibles à l'UPES est accessible en suivant ce lien: http://www.upes.ac.in/college-wise

ARTICLE 2 : Organisation

2.1. Localisation des cours

Les cours auront lieu à l'ENSEM ,2 avenue de la Forêt de Haye TSA 60604 54518 Vandoeuvre cedex, France Ou sur le campus de l' UPES , Dehradun INDIA.

 Mode de sélection des étudiants (dossier de candidature, niveau requis, fonctionnement et composition de la commission de recrutement etc.)



Les étudiants prenant part au programme d'échange devront démontrer un niveau B2 en langue anglaise s'ils suivent des cours en anglais ou mènent des projets. Un certificat du Département des Langues de chaque Université sera accepté comme attestation du niveau d'anglais.

Si les étudiants de l'UPES suivent des cours en français à l'ENSEM ils devront démontrer un niveau B1 en français.

Les étudiants de l'UPES devront envoyer leur dossier de candidature à l'ENSEM avant le 31 mai.

Ils devront fournir une traduction en français ou en anglais de leurs bulletins, une attestation de niveau de langue, la liste des cours qu'ils souhaitent suivre à l'ENSEM et devront être recommandés par un professeur.

Leur dossier sera examiné par un comité de sélection composé du Directeur des Etudes, du Directeur des Relation Internationales et des Responsables des départements dans lesquels les étudiants postulent.

Les étudiants ENSEM devront envoyer leur dossier de candidature avant le 30 avril à UPES. Ils devront remplir le dossier de candidature d'UPES et joindre leur CV, leurs bulletins scolaires ainsi qu'une lettre de recommandation du Département des Relations Internationales. Tout étudiant postulant à l'UPES devra être nominé par le service des Relations Internationales de l'ENSEM

2.3. Modalités d'inscription, statut des étudiants, montant des droits d'inscription, sécurité sociale, double inscription, carte d'étudiant

Chaque Partie, à travers son service de scolarité correspondant, assure la prise en charge de toutes les formalités d'inscription administrative et de gestion de dossiers des étudiants qui accèdent à la formation depuis l'université partenaire.

Le paiement des droits d'inscription se fera dans l'université d'origine, auprès de la scolarité référente.

Les étudiants de l'UPES en échange à l'ENSEM ne paieront pas de frais d'inscription à l'ENSEM. Ils devront toutefois s'acquitter des frais de sécurité sociale et des frais complémentaires de scolarité (sports, photocopies etc...)

De même, les étudiants ENSEM en échange à l'UPES ne paieront pas de frais d'inscription mais devront s'assurer qu'ils sont couverts par une assurance médicale internationale. Si ce n'est pas le cas ils devront souscrire à une assurance médicale auprès des services de scolarité d'UPES.

Les étudiants devront se loger et se nourrir à leurs propres frais. Tous les frais personnels (assurances notamment en responsabilité civile et rapatriement, sécurité sociale, de transport, matériel éducatif, repas) sont à la charge de l'étudiant.

Les étudiants en mobilité, que ce soit de l'ENSEM ou de l'UPES devront souscrire aux mécanismes de protection sociale réglementaire du pays de séjour — en France, notamment ils devront s'inscrire à la sécurité sociale étudiante.

L'Université d'accueil devra délivrer une carte d'étudiant aux étudiants en échange, valable pour la durée de leur séjour.

2.4. Organisation des stages éventuels

Des stages peuvent être proposés aux étudiants en échange selon les modalités en vigueur dans chacune des Parties.

UL N°2016/782

ARTICLE 3: Engagements

Il n'est pas prévu de ressources financières de la part des institutions pour la réalisation des activités des programmes d'échange. Chaque établissement se réserve le droit de rechercher des fonds pour toute activité devant se développer dans le cadre de cette convention.

L'établissement d'accueil s'engage dans la mesure de ces possibilités à mettre en œuvre toute mesure facilitant l'arrivée, l'installation et l'intégration des étudiants en échange. Il assurera le soutien des étudiants accueillis, par exemple, en mettant en place un service chargé d'orienter les étudiants dans leurs démarches administratives et un tutorat chargé d'aider les étudiants à leur adaptation aux procédures et méthodes pédagogiques de l'institution d'accueil.





CONTRACT MANAGEMENT POLICY Appendix A

DOCUMENT REVIEW AND APPROVAL FORM

Type of Docu	ment / Contract: Academic Collab	oration			
			Ref:		_
Supplier/Vend	lor/Other/s: University of Lorraine	:			
Effective Date	act □ Renewal □ Amendment/ Exh	lay 6, 2012 Auto	matic renewa	ds	n □Othe
Short Descrip	tion / Purpose: International Agree	ment on Pedagogic	al Cooperatio	on	
Part I (Finan	ce / Treasury)				
Institution/Bus	siness Unit:	Department:			
GL Account:		Total Amount:			
Budgeted	□ Yes □ No □ N/A				
□ Op Ex.	Single Payment Amount: Date Required:				
□ <u>Op</u> , Ex,					
	From:				
□ Cap. Ex.	Amount:				
	Project #:	Phase:			
Part II (Check	dist)				
Internal Comm	ents Received from Project Team?	□Yes	□ No		
Contract(s) Fu	lly Negotiated?	□ Yes	□ No	□ N/A	
Bid Submitted	P _{ere}	□ Yes	□ No	□ N/A	

REVIEWS & APPROVALS

Your signature below attests to the fact that you have read the Contract in its entirety, understand its provisions and believe that it meets the programmatic and business goals of your business unit and if policy requires your review, you have completed that review.

	Required?	Name	Title	Date	Signature & Comments
litiator	x	Dr. Ugur Guven	VP-International Affairs	May 7, 2016	a constitute de
reasury	□ Local □ Region □ Corporate □ N/A	**			□ e-mail attached
egal	□ Local □ Region □ Corporate □ N/A	Anu Sharma	Legal Advisor	May 7, 2016	du Sam
Tax	□ Local □ Region □ Corporate □ N/A	-			□ e-mail attached
Finance	□ Local □ Region □ Corporate □ N/A				□ e-mail attached
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			 c-mail attached
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			Page 2/3

□ N/A				
Required?	Name	Title	Date	signature & Comments
□ Local □ Region □ Corporate □ N/A	Sanjeev Kumar Goyal	Sr. Associate Director-Finance	May 7, 2016	□ e-mail attached
□ Local □ Region □ N/A				□ e-mail attached
□ Local □ Region □ Corporate □ N/A	Sachin Jain	Finance officer	May 7, 2016	Qui
□ President □ CEO □N/A				□ e-mail attached □ e-mail attached
0 N/A				□ e-mail attached
□ N/A		,		- e-mail attached
	Required? Local Region N/A Local Region N/A Local Region N/A Local Region Corporate N/A N/A President CEO N/A	Required? Name Local	Required? Name Title Local Corporate Goyal Sanjeev Kumar Sr. Associate Director-Finance N/A Local Region N/A Corporate Sachin Jain President CEO N/A	Required? Name Title Date Local Sanjeev Kumar Sr. Associate Director-Finance May 7, 2016 Local Region N/A





MEMORANDUM of UNDERSTANDING - MoU

on academic and research collaboration

between

University of Petroleum and Energy Studies (Dehradun, India)

and

Ecole des Mines de Nantes (Nantes, France)

This Memorandum of Understanding outlines the basis for collaboration in the areas of teaching and research between the University of Petroleum and Energy Studies, hereafter referred to as UPES and Ecole des Mines de Nantes hereafter referred to as EMNantes, a member of the Institute Mines-Telecom.

The principles that guide this collaboration and partnership between UPES and EMNantes are mutual respect for academic integrity, commitment to student success, and the broadening of international academic networks to support excellence in teaching and research.

1. Participating Bodies

The participating bodies will be UPES and EMNantes
The following liaison officers will be primary point of contact and persons responsible for the collaborative discussions:

For UPES Prof. Ram Shivpuri, Distinguished Professor

For EMNantes Dr Annya Réquilé, Dean of International Graduate School

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2. Types of Collaborative Activities

The collaboration on academic and research activities will allow:

- Exchange information pertaining to developments in teaching, and research at each institution.
- Promote institutional exchanges by inviting faculty and staff of the partner institution to participate in a variety of teaching and/or research activities and professional development.
- Invite academic representatives of the other institution, when appropriate, to participate in symposia, conferences, short courses and meetings on research issues.
- Cooperate in joint research programs in areas of mutual interest.
- Receive students for double degree program at Master and PhD's level.
- Exchange students for a period of study or research at the graduate level.

UPES and EMNantes agree that in their discussions to establish joint opportunities, they will negotiate in good faith program-specific collaboration.

The details of specific collaborative activities in each area of academic or research will be defined in additional protocols in specific Memorandum of Agreement within the framework of this Memorandum of Understanding.

3. Intellectual Property

Each party retains all right, title and interest to its own work and any intellectual property rights therein. This Memorandum of Understanding does not give either party any license of use or right over the intellectual property of the other party. The use of trademarks and/or denominations representative of either party is strictly prohibited without the owner's prior written consent.

4. Effective Date and Length of Memorandum of Understanding

The Memorandum of Understanding will remain in force for a period of five years subject to the availability of funds. Any amendment and/or modification of the Memorandum of Understanding will require written approval by each partner institution's signing officer for Memorandums of Understanding. After the initial five-year period, this Memorandum of Understanding will be renewed automatically unless written notice of termination is given.

Either party reserves the right to terminate this MoU upon six months' written notice to the other party. In this case, the program(s) or the activity(ies) already approved by both parties shall be allowed to be completed under the conditions of this Memorandum of Understanding.



5. Extension of the Memorandum of Understanding

EMNantes being part of the Institute Mines-Telecom, an extension of the current agreement to include all the Institute Mines-Telecom Graduate Schools of Engineering and Management can be considered in the future in order to enlarge the exchange possibilities for UPES. The opportunity for such a supplemental agreement can be envisaged in the frame of the annual review.

This Memorandum of Understanding will take	e effect when signed by each side:
On behalf of UPES	On behalf of EMNantes
A RETROLEUM C. P. S.	co. Migo
Dr Parag Diwan	Ms. Anne Beauval
Vice Chancellor of UPES	Director of Ecole des Mines de Nantes
Date:	Date:

AGREEMENT

ON THE COOPERATION

BETWEEN

COVENANT UNIVERSITY

AND

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

BETWEEN

Covenant University, a Christian Mission University established under the laws of the Federal Republic of Nigeria and licensed by the National Universities Commission. A member of the Association of Commonwealth Universities. Located at KM 10, Idiroko Road, Canaan Land, Ota, Ogun State, Nigeria (hereinafter referred to as "Covenant" which expression shall where the context so admits include its privies, assigns and legal representatives) of the one part.

AND

University of Petroleum and Energy Studies, a University established under the University of Petroleum & Energy Studies Act, 2003, enacted by the State of Uttarakhand, INDIA, having University Campus at Energy Acres, village Bidholi, Dehradun, Uttarakhand (hereinafter referred to as "UPES" which expression shall where the context so admits include its privies, assigns and legal representatives) of the other part.

Covenant and UPES shall jointly be referred to as the "Parties".

1. OBJECTIVES OF THE AGREEMENT

The purpose of this Agreement is to provide a framework for collaboration between Covenant and UPES as stated in the Area of Cooperation. The Parties shall apply their best endeavor to properly implement the Agreement based on mutual benefit and reciprocity taking into accounts the requirements of both Parties.

2. SCOPE OF COOPERATION

The scope of this Agreement shall include: teaching, research, student and faculty exchange.

3. AREA OF COLLABORATION

The Parties wishing to establish relations between themselves and develop academic and cultural interchange in the areas of education and research, agree to the following forms of cooperation with special emphasis on Petroleum Engineering and Oil & Gas Domain programmes across both universities:

a. In the field of teaching:

- i. to exchange experiences on teaching methods;
- ii. to exchange faculty members for the purpose of giving lectures, conducting seminars, etc.:
- iii. to organize practical work for students; and
- iv. to cooperate and interact in the process of curricular design and review;

b. In the field of research:

- i. to transfer knowledge from and to the other academic institution;
- ii. to exchange information on research in the fields of mutual interests;
- iii. to coordinate individual and joint research activities at each or both universities;
- iv. to exchange scientific results in defined subject areas;
- v. to publish the results in the areas of joint research; and
- vi. to organize joint seminars, conferences and workshops;

c. in the field of student and faculty exchange:

- to receive and/or exchange graduate and undergraduate students for the purpose of study, thesis works, internships, training and research;
- to receive and/or exchange faculty members for the purpose of giving lectures, conducting seminars and workshops, carrying out research and expert discussions;
- iii. to carry out joint research programmes by students; and
- iv. to have joint PhD students by both Universities.

4. FINANCIAL ARRANGEMENTS

- a. This Agreement does not entail financial obligations for any of the Parties.
- b. All financial agreements will be negotiated and will depend upon the availability of funds.
- c. The specific Activities shall be further developed and materialized under a separate written Agreement for each Activity when an Activity will be organized jointly. Both Parties will determine the feasibility of each Activity according to their requirements and enter into a separate written Agreement prior to its implementation, such Agreement shall consist of the legal obligations and responsibilities of both the Parties relating to the management and organization of the Activity, ownership, management and exploitation of Intellectual Property, fees, maintenance and expenses where applicable, start date and duration of Activity and surviving obligations following termination of the Activity. Both Parties will actively pursue funding in order to enable the above Activities.
- d. Each Party will nominate a representative to supervise it's involvement in an Activity, name and contact details of said representatives will be issued to both Parties. For the first year of this Agreement, Prof. Dr. Ugur GUVEN will be the contact person for UPES. While Dr. Adewale Omotayo OSIBANJO will be the contact person for Covenant.

5. DURATION/TERMINATION

- a. This Agreement shall remain in force or a period of three (3) years from the date of the last signature, with the understanding that the appropriate authorities of either Party giving three (3) months' notice to the other Party in writing may terminate it, unless the earlier termination date is mutually agreed upon. However, such termination shall not affect any on-going programme.
- b. The Agreement may be amended or extended by mutual written consent of the Parties.

6. DISPUTE RESOLUTION

Any dispute arising out of this Agreement shall be resolved by the International Offices of both Parties in the spirit of independence, mutual respect, and shared responsibility according to the rules and regulations of both sides, the laws of India and Nigeria. Where the International Offices of both Parties fail to resolve the dispute, it shall be referred to the Heads of the contracting Parties. However, where the disputes still cannot be resolved by the Heads of the contracting Parties, the Agreement shall be deemed terminated and any subsisting projects or collaboration brought to completion within a reasonable time.

7. SIGNED COPIES

This Agreement is prepared in English Language and shall be signed in four original copies. All the copies shall be valid and considered one and the same Agreement. It shall become effective when the copies are signed by both Parties.

IN WITNESS WHEREOF, the authorised representatives of the Parties hereunder set their hands and seals, the day and year first above written

THE COMMON SEAL of the within named COVENAN' the presence of: Prof. Charles Korede Ayo Vice-Chancellor	Pst. Olamide Olusegun Registrar
Date	Date
THE COMMON SEAL of the within named UNIVERSITY STUDIES was hereunto affixed in the presence of:	ΓΥ OF PETROLEUM AND ENERGY For University of Petroleum & Energy Studie-
Dr. Shrihari Honwad Vice-Chancellor	Mr. Abhay Sharma Registrar
Date	Date 17.12.15

Ministry of Education and Science of the Russian Federation Federal State Autonomous Educational Institution of Higher Education "National Research Tomsk Polytechnic University" (TPU)
30, Lenin ave., Tomsk, 634050, Russia Tel. (3822) 60 63 33, (3822) 70 17 79, Fax (3822) 56 38 65, e-mail: tpu@tpu.ru, tpu.ru
OKPO (National Classification of Enterprises and Organizations):
02069303.

Company Number: 1027000890168 VAT / KPP (Code of Reason for Registration) 7018007264/701701001, BIC 046902001 Министерство образования и науки Российской Федерации федеральное государственное автономное образовательное учреждение высшего образования «Национальный исследовательский Томский политехнический университет» (ТПУ) Ленина, пр., д. 30, г. Томск, 634050, Россия тел.: (3822) 60 63 33, (3822) 70 17 79, факс: (3822) 56 38 65, e-mail: tpu@tpu.ru, tpu.ru ОКПО 02069303, ОГРН 1027000890168, ИНН/КПП 7018007264/701701001, БИК 046902001

17.05,2018 No 03.05/2863/16

Mr. Kathuria Arnav Rohini, Delhi 110042, New Delhi India

May 16, 2018

Dear Mr. Kathuria,

On behalf of Tomsk Polytechnic University (TPU), I am pleased to invite you as an exchange student to do part of your studies at TPU within the agreement on academic exchanges between TPU and University of Petroleum and Energy Studies (India).

During the winter semester 2018-2019 TPU will provide you with necessary learning facilities and waive academic fee.

The accommodation in the student dormitory will be reserved for you from August 20, 2018 to February 10, 2019. The travel, accommodation, visa and insurance expenses are the responsibility of the student.

An entry visa will be issued by the Embassy of the Russian Federation in New Delhi.

We are looking forward to welcoming you in Tomsk as an exchange student of our partner-university.

Sincerely yours,

Alexander R. Wagner, Vice-rector for Academic Affairs