

RESOLUCIÓN DE COMISIÓN ORGANIZADORA N° 125-2017-UNAM

Moquegua, 30 de Marzo de 2017.

VISTOS, Oficio N° 19-2017-VPI-UNAM, Proveído N° 0978-2017-PRES, Proveído 376-2017-SEGE, Informe N° 02-2017-VPI/UNAM, Informe Legal N° 152-2017-UNAM, Hoja de Coordinación N° 086-2017-ORH/DIGA/UNAM, sobre autorización de viaje al exterior de tres (03) Docentes: Mg. Elías Escobedo Pacheco, Mg. Maribel Rocío Pacheco Centeno, Ing. Rodolfo Rafael Sánchez Valencia;

CONSIDERANDO:

Que, mediante Oficio N° 19-2017-VPI-UNAM, de fecha 09 de marzo de 2017, la Vicepresidencia de Investigación de la Universidad Nacional de Moquegua hace de conocimiento de la Presidencia de la Comisión Organizadora de la Universidad Nacional de Moquegua, que el Departamento de Física de la Universidad de Cambridge -Reino Unido, a través del Laboratorio Cavendish de la Universidad de Cambridge - Reino Unido, extiende una invitación para que tres docentes ordinarios de la Universidad Nacional de Moquegua participen como Investigadores Visitantes, para colaborar con el Profesor Crispin Barnes, visita que estará sujeta a la obtención de certificado de patrocinio, a realizarse del 15 de Mayo al 15 de Junio de 2017 en dicha universidad pública inglesa, situada en la ciudad de Cambridge - Reino Unido;

Que, la pasantía con fines de investigación tiene como objetivo que la Universidad de Cambridge del Reino Unido, proporcione el liderazgo académico y de investigación consolidando las relaciones internacionales como Universidad Pública Inglesa con la Universidad Nacional de Moquegua - Perú, así como incrementar y dinamizar la movilidad estudiantil y académica en el marco del Acuerdo de Colaboración de Investigación RG85120 suscrito entre ambas universidades; por tal motivo, y para afianzar el proceso de internacionalización de nuestra Universidad, resulta necesaria la participación como investigadores visitantes, de los tres (03) docentes ordinarios: Mg. Elías Escobedo Pacheco, Mg. Maribel Rocío Pacheco Centeno, y del Ing. Rodolfo Rafael Sánchez Valencia;

Que, conforme al numeral 10.1 del artículo 10° de la Ley N° 30518, Ley de Presupuesto del Sector Público para el Año Fiscal 2017, la autorización para viajes al exterior de los servidores o funcionarios públicos y representantes del Estado con cargo a recursos públicos deben canalizarse en categoría económica y se aprueba conforme a lo establecido en la Ley N° 27619, Ley que regula autorización de viajes al exterior de servidores y funcionarios públicos, y sus normas reglamentarias;

Que, de acuerdo a lo establecido en el artículo 2° del Decreto Supremo N° 047-2002-PCM, que aprueba las normas reglamentarias sobre autorización de viajes al exterior de servidores y funcionarios públicos, la resolución de autorización de viajes al exterior de la República estrictamente necesarios, es debidamente sustentada en el interés nacional o en el interés específico de la institución y debe indicar expresamente el motivo del viaje, el número de días de duración del viaje, el monto de los gastos de desplazamiento, viáticos y el impuesto por tarifa única de uso de aeropuerto; asimismo en el caso de los Organismos constitucionalmente autónomos, la excepción es autorizada por Resolución del Titular de la Entidad. En todos los casos la Resolución o acuerdo de excepción es publicada en el diario Oficial El Peruano;

Que, es preciso indicar que los gastos que irroga dicha participación por concepto de Costo por derecho a postulación de la visa; Pasajes aéreos Tacna-Lima-Londres-Lima-Tacna, hospedaje y manutención; transporte interno en Cambridge; alojamiento y traslados internos, son asumidos por la Universidad de Cambridge - Reino Unido, en concordancia al Acuerdo de Colaboración de Investigación suscrito entre ambas Universidades, de fecha 04 de Mayo 2016;

Que en consecuencia, y siendo de interés para la Universidad Nacional de Moquegua y por ende del País, se autoriza el viaje de los tres (03) docentes ordinarios: Mg. Elías Escobedo Pacheco, Mg. Maribel Rocío Pacheco Centeno, Ing. Rodolfo Rafael Sánchez Valencia;



RESOLUCIÓN DE COMISIÓN ORGANIZADORA N° 125-2017-UNAM

De conformidad con el inciso 62.2 del Art. 62° de la Ley Universitaria N° 30220, Ley 27619, Ley 30372, y en uso de las atribuciones conferidas a la Comisión Organizadora;

SE RESUELVE:

Artículo 1°.- Autorizar, el Viaje al Exterior para la pasantía con fines de investigación, a los docentes ordinarios de la Universidad Nacional de Moquegua: Mg. Elías Escobedo Pacheco, Mg. Maribel Rocío Pacheco Centeno, y el Ing. Rodolfo Rafael Sánchez Valencia; para participar como Investigadores Visitantes, colaboradores del Profesor Crispin Barnes en el Laboratorio Cavendish - Departamento de Física de la Universidad de Cambridge del Reino Unido, del 15 de Mayo al 15 de Junio 2017, en la ciudad de Cambridge – Reino Unido; en el marco del Acuerdo de Colaboración de Investigación suscrito entre ambas Universidades, de fecha 04 de Mayo 2016.

Artículo 2°.- Los gastos que ocasione el viaje autorizado en el artículo precedente, serán íntegramente cubiertos por la Universidad de Cambridge, los cuáles cubrirán 1) Costo por derecho a postulación de la visa, 2) Pasajes Aéreos Tacna-Lima-Londres-Lima-Tacna, 3) Hospedaje y manutención, 4) Transporte Interno en Cambridge, para cada uno de los docentes investigadores visitantes; los gastos serán asumidos mediante recibos por los docentes, los que serán reembolsados previa rendición de cuenta debidamente documentada, conforme a disposiciones y normas de la Universidad de Cambridge.

Artículo 3°.- Dentro de los quince (15) días calendario de efectuado el viaje, el personal docente a que se refiere el artículo 1° de la presente Resolución debe presentar ante el Titular de la Universidad Nacional de Moquegua un Informe detallado, describiendo las acciones realizadas y los resultados obtenidos durante el viaje autorizado.

Artículo 4°.- Disponer la publicación de la presente Resolución en el Diario Oficial El Peruano, de conformidad a las normas vigentes.

Regístrese, comuníquese y archívese.




DR. WASHINGTON ZEBALLOS GÁMEZ
PRESIDENTE




ABOG. GUILLERMO S. KUONG CORNEJO
SECRETARIO GENERAL

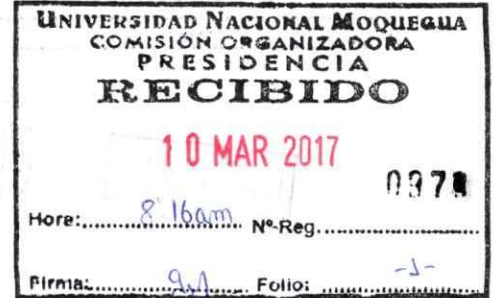


"Año Internacional del Turismo Sostenible para el Desarrollo"

Moquegua, 09 de marzo del 2017

OFICIO N° 19-2017-VPI-UNAM

Señor.
DR. WASHINGTON ZEBALLOS GAMEZ
PRESIDENTE DE LA COMISIÓN ORGANIZADORA UNAM
Presente.



ASUNTO : SOLICITO ACTO RESOLUTIVO PARA PASANTIA A CAMBRIDG

De mi mayor consideración:

Es grato dirigirme a usted, para expresarle mi cordial saludo, y como es de su conocimiento 03 docentes de nuestra Casa Superior de Estudios tendrán una pasantía Internacional a Cambridg Inglaterra, desde el día 14 de mayo al 16 de junio del presente año.

Por lo antes expuesto solicito a su digno despacho pueda emitir el respectivo acto Resolutivo de autorización de viaje de los siguientes docentes:

- Mg. ELIAS ESCOBEDO PACHECO DNI: 29703472
- Mg. MARIBEL ROCIO PACHECO CENTENO DNI: 29594083
- Ing. RODOLFO RAFAEL SANCHEZ VALENCIA DNI: 29381281

Agradeciendo la atención al presente, hago propicia la ocasión para reiterarle los sentimientos de mi especial consideración y estima personal.

Atentamente,

UNIVERSIDAD NACIONAL DE MOQUEGUA

DR. ALBERTO BACILIO QUISPE COHALLA
 VICEPRESIDENTE DE INVESTIGACIÓN



ABQC/VPI
JCM/Sec
C.c. Archivo

"Año Internacional del Turismo Sostenible para el Desarrollo"



INFORME N° 02-2017-VPI/UNAM

PARA : Abog. GUILLERMO SANTIAGO KUONG CORNEJO
ASUNTO : PASANTIA A CAMBRIDGE -INGLATERRA
REFERENCIA : INFORME N° 064-2017-SEGE-PRE/UNAM
FECHA : Moquegua, 14 de marzo de 2017

Mediante el presente me dirijo a usted, para saludarlo, y en atención al documento en referencia, comunicarle que según convenio suscrito con la Universidad de Cambridge de Inglaterra y la Universidad Nacional de Moquegua se está considerando la Capacitación de Docentes a ese país para fortalecer capacidades de Investigación en el marco del Proyecto "IMPACTO DE LA ACTIVIDAD MINERA DE LA CALIDAD DE AGUA EN LA REGION MOQUEGUA, con código: RG 85120.

Cabe señalar que es necesario que la Universidad apoye a los docentes para que puedan cumplir sus objetivos en los Proyectos de Investigación por lo que es conveniente la autorización vía acto Resolutivo ya que es parte de los requisitos que necesitan para la tramitación de la visa, por lo que adjunto al presente documentación que acredita a los tres docentes los gastos de pasajes y estadía que estarán cubiertos por la Universidad de Cambridge, como también un cronograma de trabajo de las actividades que cumplieran.

Es todo cuanto remito a usted, para su trámite correspondiente.

Atentamente,



UNIVERSIDAD NACIONAL DE MOQUEGUA
Dr. ALBERTO BACILIO QUISPE COHAILA
VICEPRESIDENTE DE INVESTIGACION



ABQC/VPI
JCM/Sec
C.c. Archivo



INFORME LEGAL N° 152-2017-UNAM-CO/OAL

AL ABOG. GUILLERMO SANTIAGO KUONG CORNEJO
Secretario General de la UNAM
ASUNTO Solicitud de acto resolutivo para pasantía a Cambridge
REF. Oficio N° 19-2017-VPI-UNAM
Informe N° 02-2017-VPI-UNAM
Hoja de Coordinación N° 086-2017-ORH/DIGA/UNAM
FECHA Moquegua, 16 de marzo de 2017



Estando al asunto y documentos de la referencia, sobre solicitud de emisión de acto resolutivo para pasantía a la Universidad de Cambridge, peticionado por la vicepresidencia de investigación de la universidad, este despacho se permite precisar lo siguiente:

1. Con Oficio N° 19-2017-VPI-UNAM e Informe N° 02-2017-VPI-UNAM, la vicepresidencia de investigación solicita la emisión de acto resolutivo que autorice la pasantía de los docentes Elías Escobedo Pacheco, Maribel Rocío Pacheco Centeno y Rodolfo Rafael Sánchez Valencia, a la Universidad de Cambridge - Inglaterra, en el marco del convenio de colaboración suscrito con la referida institución universitaria.
2. Dentro del Convenio de Colaboración de Investigación suscrito por la UNAM, de fecha 04.05.16, comprende la realización del proyecto de investigación "Impacto de la Actividad Minera de la Calidad de Agua en la Región Moquegua, con Código RG 85120"; de modo tal que, la participación de los docentes universitarios de la UNAM, será de vital importancia, además que coadyuvar en fortalecer sus capacidades de investigación, cuyos gastos de pasajes y estadía estarán cubiertos por la Universidad Cambridge, y sus actuaciones serán de acuerdo a un cronograma de trabajo de actividades, a cuyo retorno deberán presentar un informe sustentatorio, así como de realizar una exposición pública.
3. Según se tiene del numeral 88.4) del artículo 88° de la Ley N° 30220, concordante con el numeral 4) del artículo 105° del Estatuto Universitario, es derecho de los docentes universitarios participar en proyectos de investigación; asimismo, según el numeral 13) del artículo 105° del Estatuto Universitario, es derecho de los docentes de la UNAM, acceder a la movilidad docente, previo convenio con universidades nacionales o extranjeras, y/o Centro de Investigación. De modo tal que, la referida pasantía o movilidad docente se encuentra enmarcada dentro de los fines establecidos por la Ley Universitaria y Estatuto Universitario de la UNAM, de promover y realizar la investigación científica, tecnológica y humanística, correspondiendo por tal razón autorizar dichos viajes.
4. De los actuados se tiene la Hoja de Coordinación N° 086-2017-ORH/UDIGA/UNAM, con los que se adjunta informe escalafonario de los docentes propuestos para la pasantía, de donde se tiene que los tres son docentes ordinarios.
5. Para efectos de autorización de la pasantía o movilidad docente solicitado, se debe tener en cuenta lo establecido en la Ley N° 27619, Ley que regula la autorización de viajes al exterior de servidores y funcionarios públicos, así como las normas reglamentarias sobre autorización de viaje a exterior, aprobado por Decreto Supremo N° 047-2002-PCM.

CONCLUSIÓN:

En opinión de este despacho, resulta PROCEDENTE aprobar la pasantía o movilidad docente de los docentes ordinarios Elías Escobedo Pacheco, Maribel Rocío Pacheco Centeno y Rodolfo Rafael Sánchez Valencia, a la Universidad de Cambridge - Inglaterra, en el marco del convenio de colaboración suscrito con la referida institución universitaria, del 14 de mayo al 16 de junio de 2017, para su participación en el proyecto de investigación "Impacto de la Actividad Minera de la Calidad de Agua en la Región Moquegua, con Código RG 85120"; debiendo por consiguiente, elevarse los actuados al pleno de la Comisión Organizadora, para la aprobación de la pasantía o movilidad docente y autorización de viaje al extranjero, y posterior emisión del acto resolutivo correspondiente para su publicación en el diario oficial El Peruano.

Es cuanto cumpla con informar a su despacho, para los fines que estime conveniente.
Atentamente:

UNIVERSIDAD NACIONAL DE MOQUEGUA
OFICINA DE ASESORIA LEGAL

Abog. OSCAR LEONIDAS LAGOZ CALSIN
ICAP N° 1734
ASESOR LEGAL

www.unam.edu.pe

Prolong. Calle Ancash S/N
Moquegua 53, Perú
Telef. 053-463514
Anexo: 207

HOJA DE COORDINACION N° 086 -2017-ORH/DIGA/UNAM

A : **Abog. GUILLERMO SANTIAGO KUONG CORNEJO**
Jefe de la Oficina de Secretaria General - UNAM

DE : **ABOG. JUAN LUIS MORON PINTO**
Jefe de la Oficina de Recursos Humanos de la UNAM

ASUNTO : **REMITO INFORME ESCALAFONARIO.**

REFERENCIA : **OFICIO N° 19-2017-VPI-UNAM**

FECHA : **Moquegua, 15 de Marzo del 2017.**



Mediante el presente me dirijo a usted para saludarlo cordialmente y a la vez de acuerdo al documento de la referencia, se remite adjunto al presente el Informe Escalafonario, de los siguientes docentes:

- MG. ELIAS ESCOBEDO PACHECO
- MG. MARIBEL ROCIO PACHECO CENTENO
- ING. RODOLFO RAFAEL SANCHEZ VALENCIA

Es cuanto informo a usted, para su conocimiento y fines.

Atentamente,



UNIVERSIDAD NACIONAL MOQUEGUA
ABOG. JUAN LUIS MORÓN PINTO
Jefe de la Oficina de Recursos Humanos



UNIVERSIDAD NACIONAL DE MOQUEGUA
SECRETARIA GENERAL

PROVEÍDO: **406**

FECHA : **15 MAR. 2017**

PASE A : **DAH**

PARA : **Anexar a Expediente Res. 376 para complementar opinion**



UNIVERSIDAD NACIONAL DE MOQUEGUA
VICEPRESIDENCIA DE INVESTIGACION
RECIBIDO
13 MAR 2017
N° EXP. 533
UNAM FOLIOS: 02

INFORME N° 064-2017-SEGE-PRES/UNAM

A : Dr. ALBERTO BACILIO QUISPE COHAILA
Vicepresidente de Investigación de la Comisión Organizadora

DE : Abog. GUILLERMO SANTIAGO KUONG CORNEJO
Secretario General

ASUNTO : Remita justificación de viaje de pasantía a Cambridge precisando el beneficio para la Universidad.

REFERENCIA : Oficio N° 19-2017-VPI-UNAM

FECHA : Moquegua, 13 de marzo del 2017

Por medio del presente me dirijo a usted para saludarlo cordialmente; y en atención al documento de la referencia, el cual nos fue derivado para ser tratado en Sesión de Comisión Organizadora; no obstante efectuada la revisión del documento no se indica los beneficios que obtendrá la universidad al autorizar dicha actividad, por lo que se solicita a su despacho remita la justificación de la pasantía Internacional a la ciudad de Cambridge - Inglaterra, a realizarse el 14 de mayo al 16 de junio del presente año, por los docentes Mg. Elías Escobedo Pacheco, Mg Maribel Rocío Pacheco Centeno y el Ing. Rodolfo Rafael Sánchez Valencia, precisando los beneficios e interés institucional que obtendrá la Universidad Nacional de Moquegua.

Es todo cuanto solicito a usted, para las acciones correspondientes.

Atentamente,



UNIVERSIDAD NACIONAL DE MOQUEGUA

Abog. Guillermo Santiago Kuong Cornejo
SECRETARIO GENERAL

GSKC/SG
Bam/sec
C.C. Archivo

VICEPRESIDENCIA DE INVESTIGACION - UNAM
Folios: Prov.
Pase a: Dra. Jackie
Para: su atención
Fecha:

Dated: Cambridge, May 4th, 2016

(1) THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF CAMBRIDGE

(2) UNIVERSIDAD NACIONAL DE MOQUEGUA

UNIVERSITY OF CAMBRIDGE RESEARCH COLLABORATION AGREEMENT



THIS AGREEMENT dated Cambridge, May 4th, 2016, is made **BETWEEN:**

- (1) **The Chancellor, Masters and Scholars of the University of Cambridge** of The Old Schools, Trinity Lane, Cambridge CB2 1TN ("University"); and
- (2) **Presidente de la Comisión Organizadora de la Universidad Nacional de Moquegua**, Prolongación calle Ancash s/n, Moquegua, Perú ("the Sponsor")

BACKGROUND

- A) The University and the Sponsor wish to work together for mutual benefit on the research project described below.
- B) The University is a charity strongly committed to publication and commercialisation of its research. Research findings are published, subject to the removal of Sponsor Confidential Information and the filing of registerable rights where appropriate.
- C) The University is willing to grant the Sponsor early access to unpublished Results and an option to take an exclusive licence of any Intellectual Property in those Results.
- D) Until Published, Results are University Confidential Information.

1. DEFINITIONS

In this Agreement the following expressions have the meaning set opposite:

Agreement: this document, including its Schedules, as amended from time to time in accordance with clause 10.4;

Background: information, techniques, data, results, design, technology, materials, inventions and software (regardless of the form or medium in which they are disclosed or stored) and any Intellectual Property whenever provided by one party to the other for use in the Project[, as specified in Schedule 2,] and limited in the case of the University to Background of any Key Personnel; for the avoidance of doubt Background is distinct from and is not part of any Result;

Business Day: Monday to Friday (inclusive) except bank or public holidays;

Confidential Information: Any Background identified as confidential; Results are University Confidential Information until publication by the University;

Effective Date: 1st June 2016;

End Date: 31st May 2017 or until any later date agreed in writing between the parties;

Financial Contribution: the financial contribution to be provided by the Sponsor set out in Schedule 1;



Indemnified Parties:	the University and its Key Personnel, staff and students;
Intellectual Property:	patents, trademarks, service marks, registered designs, copyrights, database rights, design rights, applications for any of the above, and any similar right recognised from time to time in any jurisdiction, together with all rights of action in relation to the infringement of any of the above;
Key Personnel:	the Principal Investigator and any other key personnel for either party identified in Schedule 2;
Negotiation Period:	90 days beginning on the date of the Option Notice served by the Sponsor;
Option Notice:	a written option notice served by the Sponsor on the University during the Option Period;
Option Period:	for each Result is 3 months beginning on the date of the report notifying the Result;
Principal Investigator:	Prof. Crispin H. W. Barnes or his successor appointed under clause 9.2;
Project:	the programme of work described in Schedule 2, as amended from time to time in accordance with clause 10.4;
Project Period:	the period described in clause 2.1;
Results:	all information, techniques, data, results, design, technology, materials, inventions and software identified or first reduced to practice or writing in the course of undertaking the Project;
University's Nominee:	the University's wholly owned technology transfer company which at the Effective Date is Cambridge Enterprise Limited.



2. **THE PROJECT**

- 2.1 This Agreement takes effect on the Effective Date and will continue until the End Date unless terminated earlier in accordance with clause 8 or 9.
- 2.2 The University will perform its respective tasks in Schedule 2. The Project will be carried out under the direction of the Principal Investigator.
- 2.3 Each party will use all reasonable endeavours to obtain all necessary regulatory and ethical licences, consents and approvals required in relation to its tasks.

- 2.4 Each party will ensure that its employees and students (if any) observe the conditions attached to any regulatory and ethical licences, consents and approvals.
- 2.5 The University does not undertake that any research will lead to any particular result, nor guarantee a successful outcome to the Project.
- 2.6 The University will provide the Sponsor with quarterly Project reports and a copy of all Results which shall be supported by Project work records.
- 2.7 Each party warrants to the other that it has full power and authority under its constitution, and has taken all necessary actions and obtained all necessary authorisations, licences, and consents to perform this Agreement.

3. FINANCIAL CONTRIBUTION

3.1 The Sponsor will pay the Financial Contribution to the University in accordance with Schedule 1 (and any further sums due under clause 9.5) within 30 days beginning on the Sponsor's receipt of University invoices.

3.2 All amounts payable to the University under this Agreement are exclusive of VAT (or any similar tax) which the Sponsor will pay at the rate from time to time prescribed by law.

3.3 If the Sponsor fails to make any payment due to the University under this Agreement, without prejudice to any other right or remedy available to the University, the University may do either or both of the following:

3.3.1 suspend performance and charge the Sponsor for all costs and expenses incurred by the University as a result of such suspension;

3.3.2 charge reasonable debt recovery costs together with interest (both before and after any judgement) on the amount outstanding, on a daily basis at the statutory rate in force on the due date under the Late Payments of Commercial Debts (Interest) Act 1998.

That interest will be calculated from the date or last date for payment to the actual date of payment, both dates inclusive, and will be compounded quarterly. The Sponsor will pay that interest to the University on demand.

3.4 The University will own all equipment purchased or constructed by or for the University for the Project.

4. USE AND EXPLOITATION OF INTELLECTUAL PROPERTY

4.1 This Agreement does not affect the ownership of any Background or any other information, techniques, data, results, design, technology, materials, inventions or software that are not Results. The Background will remain the property of the party that contributes it to the Project (or its licensors).



No licence to use or sub-license any Intellectual Property, Background or Results is granted or implied except the rights expressly granted in this Agreement. All rights not expressly granted are reserved to the rights holder.

4.2 Each party grants the other a royalty-free, non-exclusive licence to use its Background for the purpose of carrying out the Project, but for no other purpose.

4.3 The University will own the Results and all Intellectual Property in them.

4.4 Ownership of Intellectual Property includes the exclusive right to register and maintain any protection for those rights, unless otherwise agreed.

4.5 4.5.1 If the Sponsor serves an Option Notice, the University's Nominee and the Sponsor will negotiate during the Negotiation Period for a licence to use Intellectual Property in the Results on fair and reasonable terms.¹

4.5.2 The Sponsor may ask the University to extend the Negotiation Period or to apply for a patent on condition that the Sponsor reimburses the patent filing and prosecution costs and expenses incurred since the Effective Date. The obligation to reimburse will continue until the grant of a licence under this clause to the Sponsor or the end of six months beginning on the last day of the Negotiation Period, whichever shall occur first. Once the Sponsor's obligation to reimburse has ended, the University is under no obligation to maintain the patent. If the University later licenses or assigns to a third party any of the Intellectual Property in the Results for which the Sponsor has paid any filing costs and expenses, the University will reimburse such of those costs and expenses to the Sponsor as may be reasonable in the circumstances.

4.5.3 The Sponsor will inform the University about any public or commercial benefit arising from the Sponsor's use or exploitation of any Result if the University so requests at any time before the fifth anniversary of the Effective Date.

4.6 For the avoidance of doubt, the Sponsor acknowledges and agrees that despite the grant of any rights under this Agreement, the University and each employee and student of the University will retain the irrevocable, royalty-free right to use the Results for the purposes of academic teaching, publication and academic research, including without limitation as background intellectual property for any academic research project (whether commercially or internally funded research, or research pursuant to EC, government or other public or charitable research funding) and to license other institutions for these purposes. The right to publish in this clause is subject to clause 5.



¹ Cambridge Enterprise's principles for commercialisation are set out at <http://www.enterprise.cam.ac.uk/company-information/mission-goals-principles/>

5. **PUBLICATION**

- 5.1 The Sponsor may not publish any Result prior to publication by the University, without the University's prior written consent.
- 5.2 The University will give to the Sponsor written details of any Results and any Sponsor's Background that any University employee or student intends to publish, at least 30 days before the proposed submission date. Within 14 days beginning on the date of the University notice the Sponsor may give written notice requiring the University to delay publication for a maximum of 3 months to enable filing for a patent or similar protection, or removal of the Sponsor's Confidential Information specified in its notice. For the avoidance of doubt, notification is not required for University teaching or internal meetings.
- 5.3 Provided a notice has not been given under clause 5.2, any employee or student of the University (whether or not involved in the Project) may, publish any of the Results.
- 5.4 Nothing in this Agreement will prevent submission, University examination or deposit in a University library of a thesis based on any of the Results. The University will notify the Sponsor at least 30 days before the thesis is to be submitted. Within 14 days beginning on the date of the University's notice the Sponsor may, request in writing that external examiners sign confidentiality undertakings in respect of any Sponsor Confidential Information or to enable filing for patent protection. If the Sponsor does not so request within that period or, if so requested the University obtains signed confidentiality undertakings, examination of the thesis may proceed.

6. **CONFIDENTIALITY**

- 6.1 Subject to clause 5, neither party will, either during the Project or for 3 years after its end, disclose to any third party, nor use for any purpose (other than as expressly provided under this Agreement) any of the other party's Confidential Information without prior written consent.
- 6.2 Neither party will be in breach of any obligation to keep any Confidential Information confidential to the extent that it:
 - 6.2.1 was known to the party making the disclosure before its receipt from the other party, and was not then already subject to any obligation of confidentiality to the other party;
 - 6.2.2 is or becomes publicly known without any breach of this Agreement or any other undertaking to keep it confidential;
 - 6.2.3 [has been obtained by the party making the disclosure from a third party who had no reason to believe that there had been a breach of an obligation of confidentiality owed to the other party;
 - 6.2.4 has been independently developed by the party making the disclosure;] or
 - 6.2.5 must be disclosed by law or order of court or competent authority (including without limitation under the Freedom of Information Act 2000), provided in all cases the other party is notified as early as possible prior to disclosure.



- 6.3 The University will not be in breach of this clause 6, by publishing in compliance with clause 5.
- 6.4 The Sponsor will not be in breach of this clause 6 by exercising any right expressly granted by this Agreement provided the recipient undertakes to keep the disclosed information confidential.
- 6.5 The Sponsor will respond within 5 Business Days beginning on the date of a University request for information in relation to a statutory exemption under clause 6.2.
- 6.6 Neither party will use the other's name or logo or the name of any of the Key Personnel in any marketing or other publication, without first obtaining the other's written consent [except that the University may identify that sums have been received from the Sponsor in the University reports and similar publications].
- 6.7 The obligations in this clause 6 supersede any confidentiality or non-disclosure agreement signed by the parties which relates to the work to be undertaken in the Project.

7. LIMITATION OF LIABILITY

- 7.1 The Sponsor acknowledges and agrees that the Project is of an experimental and developmental nature. Neither of the parties makes any representation or gives any warranty to the other that any advice or information given by it or any of its employees or students who work on the Project, or the content or use of any Results, Background, or materials, works or information provided, will not constitute or result in any infringement of third-party rights.
- 7.2 The express undertakings and warranties given by the parties in this Agreement are in lieu of all other warranties, conditions, terms, undertakings and obligations, whether express or implied by statute, common law, custom, trade usage, course of dealing or in any other way. All of these are excluded to the fullest extent permitted by law.
- 7.3 Nothing in this Agreement limits or excludes either party's liability for death or personal injury or any fraud or for any sort of liability that, by law, cannot be limited or excluded.
- 7.4 Subject to clause 7.3, and except under the indemnity in clause 7.6, the liability of either party to the other and any of the Indemnified Parties to the Sponsor for any breach of this Agreement or negligence or arising in any other way out of the subject matter of this Agreement, the Project, the Results, or Background, will not extend to any indirect damages or losses; or to any loss of profits, data, loss of contracts or opportunity, whether direct or indirect, even if the party bringing the claim has advised the other of the possibility of those losses, or if they were within the other party's contemplation.
- 7.5 Subject to clause 7.3, the aggregate liability of each party to the other (which in the case of the University shall mean the aggregate liability of the Indemnified Parties) for all and any breaches of this Agreement, any negligence, or arising in any other



way out of the subject matter of this Agreement, the Project, the Results and Background, will not exceed in total the Financial Contribution.

7.6 Notwithstanding anything else in this Agreement the Sponsor will indemnify the Indemnified Parties in full against third party claims or judgements (including without limitation in contract, tort, negligence or for breach of statutory duty or misrepresentation) which relate to or arise from the University's use of the Sponsor's Background or the Sponsor's (or that of any sub-licensee pursuant to clause 4.5) use of or reliance on any of the Results, associated advice or information or an Indemnified Party's Background provided that the University:

7.6.1 promptly notifies the Sponsor of details of the claim;

7.6.2 does not make any admission in relation to the claim;

7.6.3 allows the Sponsor to have the conduct of the defence or settlement of the claim [providing the Sponsor takes into account the University's reasonable reputations about the conduct or settlement]; and

7.6.4 gives the Sponsor all reasonable assistance (at the Sponsor's expense) in dealing with the claim.

The indemnity in this clause will not apply to the extent that the claim arises as a result of an Indemnified Party's deliberate breach of this Agreement or its knowing infringement of any third party's Intellectual Property.

8. **FORCE MAJEURE**

Neither party will be liable for any failure or delay due to circumstances beyond its reasonable control (except a payment obligation) but must notify the other party promptly. If the delay in performance is more than 6 months, the other party may terminate this Agreement with immediate effect by giving written notice.

9. **TERMINATION**

9.1 Either party may terminate this Agreement with immediate effect by giving written notice to the other party if:

9.1.1 the other party is in material breach (including any non-payment) and, if the breach is remediable, has failed to remedy within 60 days of being required to do so in writing; or

9.1.2 the other party becomes insolvent, or if an order is made or a resolution is passed for its winding up (except voluntarily for the purpose of solvent amalgamation or reconstruction), or if an administrator, administrative receiver or receiver is appointed over the whole or any part of the other party's assets, or if the other party makes any arrangement with its creditors.

9.2 Each of the parties will notify the other promptly if at any time any of its Key Personnel is unable or unwilling to continue to be involved in the Project. The party who originally appointed that person will use reasonable endeavours to notify a successor, which the other party will not unreasonably refuse to accept. If a successor has not been appointed within 6 months beginning on the date of that



notice, either party may terminate this Agreement by then giving the other not less than 3 months' notice.

9.3 Clauses 1, 4 (subject to clause 9.6), 5, 6, 7, 8, 9.3, 9.4, 9.5 and 10 will survive the expiry of the Project Period or the termination of this Agreement for any reason and will continue indefinitely.

9.4 On the termination of this Agreement, the Sponsor will pay the University pro rata for all work done prior to termination to the extent the Financial Contribution has not been paid.

9.5 Termination is without prejudice to any accrued rights. If the University terminates under clause 9.1 or either party terminates under clause 8 or 9.2, the Sponsor will in addition meet all costs which cannot reasonably be cancelled and reimburse:

9.5.1 the employment costs of staff appointed to the Project before the service of the notice, provided that the University takes all reasonable steps to minimise those costs;

9.5.2 a proportion of any redundancy costs incurred as a direct result of the termination of this Agreement, calculated by dividing the individual's involvement in the Project by the duration of his period of employment by the University; and

9.5.3 student-related costs including without limitation fees and maintenance.

Reimbursement will continue until the effective date of termination of each staff contract or studentship or the date on which the Project was to have ended (whichever is the earlier).

9.6 If the University terminates this Agreement under clause 9.1, clause 4.5 shall not survive termination nor shall any Option Notices which have been served even if the Negotiation Period has not yet expired.

10. GENERAL

10.1 **Notices:** Any notice to be given under this Agreement must be in writing, and may only be delivered as follows:

Method of service	Deemed day of receipt
By hand or courier	the day of delivery
By pre-paid first class post	the second Business Day after posting
By recorded delivery post	the next Business Day after posting
By fax (provided the sender's fax machine confirms complete and error-free transmission of that notice to the correct fax number)	the next Business Day after sending or, if sent before 16.00 (sender's local time) on the Business Day it was sent



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The parties' respective representatives for the receipt of notices are, until changed by notice given in accordance with this clause, as follows:

For the University:	For the Sponsor:
Head of the Research Operations Office, University of Cambridge, Greenwich House, Madingley Road, Cambridge CB3 0TX. Fax number 01223 332988 Notices are to be copied to the Principal Investigator	Dr. Jorge Hugo Jhoncon Kooyip, Vice Presidente de la Comisión Organizadora de la Universidad Nacional de Moquegua, Prolongación calle Ancash s/n, Moquegua, Perú Or his successor appointed under clause 9.2

- 10.2 **Assignment** Neither party may assign or transfer this Agreement, or any of its rights or obligations under it, without the other party's prior written consent, not to be unreasonably withheld or delayed, (except that the University may assign the Results, including the Intellectual Property in any of the Results, to the University's Nominee).
- 10.3 **Illegal/unenforceable provisions:** If the whole or any part of any provision of this Agreement is void or unenforceable in any jurisdiction, the other provisions of this Agreement, and the rest of the void or unenforceable provision, will continue in force in that jurisdiction, and the validity and enforceability of that provision in any other jurisdiction will not be affected.
- 10.4 **Waiver or Variation:** A provision of this Agreement or any right created under it cannot be waived or varied or amended except by the parties' written agreement.
- 10.5 **No agency:** Nothing in this Agreement creates, implies or evidences any partnership or joint venture between the parties, or the relationship between them of principal and agent. Neither party has any authority to make any representation or commitment, or to incur any liability, on behalf of the other.
- 10.6 **Entire agreement:** This Agreement constitutes the entire agreement between the parties relating to its subject matter. Each party acknowledges that it has not entered into this Agreement on the basis of any warranty, representation, statement, agreement or undertaking except those expressly set out in this Agreement. However, this clause does not exclude any liability in respect of any fraudulent misrepresentation.
- 10.7 **Third parties** The Indemnified Parties may enforce those terms of this Agreement which expressly confer rights on them, subject to and in accordance with the Contracts (Rights of Third Parties) Act 1999. Save as aforesaid no term of this Agreement shall be enforceable under that Act by a person who is not a party to this Agreement, but this shall not affect any right or remedy of any third party which exists or is available other than under that Act. Notwithstanding that any term of this Agreement may be or become enforceable under that Act by a person which is



not a party to it, this Agreement may be amended in any respect, or suspended, cancelled or terminated by agreement in writing between the parties, in each case without the consent of such third party.

- 10.8 **Governing law:** This Agreement is governed by, and is to be construed in accordance with, English law. The English Courts will have exclusive jurisdiction to deal with any dispute which has arisen or may arise out of, or in connection with, this Agreement, except that either party may bring proceedings for an injunction in any jurisdiction.
- 10.9 **Escalation:** Either party may refer a dispute by written notice to the other for joint resolution by the Head of the Research Operations Office, and Mag. Maribel Rocio Pacheco Centeno, Head of Research Management Office. or their nominees. Either party may litigate if the matter has not been resolved within 14 days, beginning on the date of such notice. Either party may apply for an injunction, whether or not any issue has been escalated under this clause.
- 10.10 **Further Assurance:** Each party shall use all reasonable endeavours to do or procure to be done all further acts and execute or procure the execution and delivery of all other documents as the other party may from time to time reasonably require for the purposes of giving that party the full benefit of its rights under this Agreement.

SIGNED for and on behalf of the University:

Name **Philip Cull**
Position **Assistant Director**

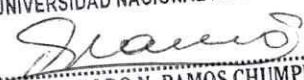
Signature 

Read and understood by the Principal Investigator

Signature 

SIGNED for and on behalf of the Sponsor:

Name: **Oswaldo Napoleón Ramos Chumpitaz**
Position: **President of the Commission of Organisation of National University of Moquegua**

Signature 
UNIVERSIDAD NACIONAL DE MOQUEGUA
UNAM
DR. OSWALDO N. RAMOS CHUMPITAZ
PRESIDENTE



SCHEDULE 1

The Financial Contribution

Sponsor PO number:

Payments quarterly/annually in advance	Year 1 (£)	Year 2 (£)	Year 3 (£)	Total (£)
Beginning on:	604,555			604,555

All amounts in this Schedule exclude VAT.

All payments of the Financial Contribution will be made in Pounds Sterling by BACS to the following bank account, without deduction of bank charges:

Name of Account: University of Cambridge
 Account Number: 10921084
 Bank Sort Code: 20-17-19
 Name of Bank: Barclays Bank plc
 Address of Bank: St Andrew's Street Branch, 9-11 St. Andrew's Street, Cambridge, CB2 3AA, United Kingdom
 Reference: RG 85120



SCHEDULE 2

The Project

1. Description

Investigate the impact of mining activities on hydrology and water quality in Peru's Moquegua region.

The full project is described in detail in Appendix A (see below). This contract covers only the one-year pilot era programme.

2. University Key Personnel

- Prof. Crispin Barnes, a condensed matter physicist and head of group.
- Dr Luis De Los Santos Valladares, a condensed matter physicist and expert in mineral analysis.
- Mr Eustace Barnes M.Sc, an expert in Peruvian environmental and biological science.

Sponsor Key Personnel

- Dr. Oswaldo Napoleon Ramos Chumpitaz, president of the Commission of Organization.
- Dr Jorge Hugo Jhoncon Kooyip, vice president for research of the Commission of Organization.
- Mag. Maribel Rocio Pacheco Centeno, Head of Research Management Office.

3. Resource summary and justification of resources

Cambridge

The PI at Cambridge, Prof. C.H.W. Barnes (10% £9,975) will coordinate the project, chairing the weekly meetings in Cambridge and discussing research work in Cambridge and Peru on a daily basis. He will also coordinate with UNAM administration and will visit Moquegua twice. Dr A. Irvine (25% £12,519) coordinate cleanroom fabrication of assay related technology, daily supervision of PDRA2, communication with field workers RA1 and PDRA1.

RA1: We require a bilingual environmental scientist with extensive field experience working in Peru who is able to coordinate around 15 students collecting samples from potentially remote locations in the Moquegua region. This role will also include, teaching, data analysis and frequent travel between the UK and Moguegua. (UCAM FEC RA £44,389.) We expect this role to be taken by our researcher Co-I Eustace Barnes M.Sc.

PDRA1: We require a bilingual materials scientist with extensive field experience working in Peru who is able to coordinate around 15 students preparing samples collected from biological material, soils, water and from the air. This role will also include, teaching, data analysis and frequent travel between the UK



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and Moguegua. (UCAM FEC RA £45,066.) We expect this role to be taken by our researcher Co-I Dr Luis de Los Santos Valladares.

PDRA2: We require a physicist or engineer expert in cleanroom fabrication, microfluidics, thin-film growth and assay technology. (UCAM FEC RA £44,389.) No person is specified for this role.

We estimate that between the PI, research assistants and students, 12 trips at £2,500 between the UK and Peru will be necessary. (£30,000).

Fabrication of the necessary assay technology will make extensive use of the TFM thin-film growth facility (£20,000), cleanrooms (£15000), pooled labour (£2,287) and infrastructure technicians (£7838). Thin-film samples arriving from Peru will be analysed in the Cavendish Microscopy Suite (£5000). Consumables costs will be (£15,000).

Since the project's main output will be research papers, we will require three conference or workshop trips at £2000. (£6000).

UCAM Estate and Indirect costs will be £178,591. An application has been made by the principal investigator to reduce these costs based on RA1 being based at UNAM for 75% of his time and PDRA2 being based at UMAN for 50% of his time. If this application is successful, the costs can either be removed from the grant or, preferably, transferred to UNAM as Estate and Indirect costs.

Moquegua

In order to advertise our work and bring in support from UNAM staff and students we will run a regular seminar series. Once a month for 8 months we will invite a high profile speaker on environmental issues. (£20,000).

We request a minimum of 200 sq m of office and lab space. We will require a bilingual administrator to co-ordinate the field and lab activities of C-MIEP staff and students and all administrative matters relating to them including communication with Prof. Barnes. (£15,000). We will require office equipment including, chairs, tables, computers, seminar-room equipment (£20,000). We will require access to local expertise through consultancy. This will include, at least, experts in mining assay tests, and experts in local geology (£10,000).

A sample collection team of roughly 15 students will be required for seven months (£52,500). A sample preparation and *in-situ* analysis team of roughly 15 students will be required for 3 months (£22,500). We will require consumables relating to these activities (£18,500) and local travel (£10,000).

4. Sponsor Background

University Background (provided it is at the free disposal of the University)

All background for UCAM technology has been published and is publically available.

Third party Background

There is no relevant third party background.



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APPENDIX A



Department of Physics



Dated: Cambridge 30th March 2016.

This document

- builds on the Memorandum of Understanding between the **National University of Moquegua (UNAM)** and the **University of Cambridge, Department of Physics (UCAM)**, dated on 9th November 2015. Attached to this document.
- is intended to **guide discussion** towards the creation of a **statement of intent** for both parties that can be used as a basis for the creation of a mutually beneficial **contract** between the **National University of Moquegua** and the **University of Cambridge, Department of Physics**.

Participants in the discussion

UCAM:

- Prof. Crispin Barnes, a condensed matter physicist and head of group.
- Dr Luis De Los Santos Valladares, a condensed matter physicist and expert in mineral analysis.
- Mr Eustace Barnes M.Sc, an expert in Peruvian environmental and biological science.

UNAM:

- Dr. Oswaldo Napoleon Ramos Chumpitaz, president of the Commission of Organization.
- Dr Jorge Hugo Jhoncon Kooyip, vicepresident for research of the Commission of Organization.

Proposal

We propose the creation of:

The Cambridge-Moquegua Institute of Environmental Physics (C-MIEP)

to be funded by UNAM through the Cannon-Minero.

Summary

The C-MIEP will be a research institute aimed specifically at the study of **Peruvian environmental physics**. It will be physically located at the Moquegua Campus of UNAM. This institute will perform

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scientific research activities aimed at investigating the impact of mineral extraction on the environment, with particular reference to water resources, agro-ecology, and ecological integrity. It will operate initially in the Moquegua Region but in the long term across the whole of Peru. The first year is intended to be a pilot programme. It will include the exchange of researchers and students between UNAM and UCAM, field research, and analysis of soil, biological material, water and air using both *in-situ* and *ex-situ* techniques.

Economic Context

We believe that mineral extraction is vitally important for the economy and future development of Peru. At present it accounts for 50% of Peru's GDP and employs a significant proportion of the population. However, the environmental impacts of mineral extraction are also well documented and there are a wide variety of conflicts of interest arising from extractive activities throughout Peru. It is, of course, not in the interests of the Peruvian government, the people of Peru, or the mining corporations in Peru to simply accept the negative impacts of mineral extraction. It would be an aspiration of C-MIEP to be able to utilise research findings to inform statutory regulation on the part of government authorities and operational decisions on the part of mining corporations to avoiding or mitigate the negative impacts of mineral extraction.

Background

The University of Cambridge is a leader in the international ranking of Universities. Within the Physics Department, we have substantial technical and scientific resources at our disposal enabling us to engage in any scientific research programme. We also have a network of interdisciplinary collaborators and contacts that allow us to apply our methods to a wide variety of fields from environmental science and biology through to mineral analysis and its dispersion through the environment.

Of particular relevance to this project, over the past eight years, in the Physics Department, we have been working on a platform technology enabling multiplexed assays and we are now keen to adapt it to enable a wide variety of different types of test on water and soils. We are keen to initiate a large-scale practical research project that will enable us to define which tests are the most useful and to determine the practicalities of applying them in the field. We believe that the C-MIEP will be ideal vehicle to achieve this.

UNAM has six undergraduate schools with interests linked to the C-MIEP: Management of Public Social Development; Agroindustrial Engineering; Mining Engineering; Environmental Engineering; Fishing Engineering and Computing Engineering. We would hope to engage with students from any of these schools offering final year projects and potentially M.Sc and Ph.D projects.

Given the availability of funds through the 'Canon Minero' there is clearly a significant opportunity for UNAM and UCAM to collaborate in a mutually beneficial research project. The C-MIEP will allow us to develop our technology, contribute to developing the analytical techniques involved in assessing the impacts of mineral extraction, and promote research in environmental physics at both institutions.



Project Objectives

The overall intention of the C-MIEP will be to undertake research into the environmental consequences of extractive industries in Peru in the broadest sense. We intend to investigate the impacts of mining within an intuitive typology of impacts; that is, those consequences that we might reasonably expect to result from extractive activity to give the logical framework within which our research will be ordered.

This would involve four elements:

- (A) Application and Development of new techniques in assessing the impacts of mining. We would be utilizing a variety of cutting edge technologies we have developed as well as working on new sensing technologies.
- (B) Comparing the efficacy of existing techniques involved in predicting, and identifying the impacts of mineral extraction.

Our fieldwork would provide objective measures of the impact of mineral extraction and assist in developing innovative strategies that would help mining companies avoid the negative impacts associated with their industry.

- (C) This collaborative venture would establish C-MIEP at the Moquegua campus of UNAM. Research undertaken in Peru would produce a broad range of studies on the impacts of mineral extraction on the environment. We hope that these studies will assist and inform the development of a more robust regulatory framework for the extractive industries in Peru.
- (D) Once established, the C-MIEP will aim to become a Centre of Excellence. We expect the complex relationship between mining, the environment, and sustainable development to be a core driver of the C-MIEP's mission. The C-MIEP would provide solutions to significant challenges posed by the extractive industries for broader economic and environmental concerns within the Peruvian economy. We would engage innovative programs that would focus on contributing to industrial development, efficient environmental management and clean energy through collaborative ventures within a wide range of agencies.



Activities and timeline

This is a long-term project divided into three eras:

1) Pilot era (one year):

Coordinators: Prof. Crispin Barnes, based in the UK lead coordinator for creation of the C-MIEP, Dr Luis De Los Santos Valladares, based partly at Moquegua and partly in the UK, and responsible for soil, mineral and water analysis and for related outreach and teaching. Mr Eustace Barnes M.Sc, based partly at Moquegua and partly in the UK, and responsible for sample collection based on geological, environmental and biological factors and for related outreach and teaching.

Aim: To establish the C-MIEP as an active research group.

Timeline for the First Year Pilot Era

Time	Activity
From month 1 to month 2	Visit of researchers from UCAM to UNAM to identify suitable study sites.
From month 3 to month 12	Collection of samples and <i>in-situ</i> measurements with the help of researchers and students from UNAM and UCAM.
From month 5 to month 12	Ex-situ measurements at UCAM.
From month 7 to month 10	Visit of researchers from UNAM to UCAM for training. Data processing with students and researchers from UNAM.
From month 10 to month 12	Analysis of data with researchers and students from UNAM. Writing scientific articles and final report.

Initially, we plan employ two teams of fieldworkers to investigate water quality in two catchments in Moquegua and possibly one in Madre de Dios. These teams would ideally consist of UNAM students working with their respective heads of department and students from UCAM on summer placements.

The projects would establish the viability of our collaboration and give us a model for our future research.

2) Establishment era (five years):

Coordinators: Prof. Crispin Barnes, Dr Luis De Los Santos Valladares and Mr Eustace Barnes. At this stage we expect to include coordinators from UNAM.

Aim: To establish the C-MIEP as a Centre of Excellence in Environmental Physics investigating the impact of mineral extraction on the environment with particular reference to water resources, agro-ecology and ecological integrity in the Moquegua Region.

We aim to generate data sets for hundreds of different chemicals found in the environment and assess, not only their presence or absence, but also their relative concentrations, movements and their exact source. We will effectively be able to conduct thousands of tests and hope to be able to produce detailed maps of the distribution and relative concentrations these chemicals across wide areas. We will run this in parallel with base-line data assessments of environmental quality, human health and agricultural indices.

During this period an appropriate building for the research centre will be constructed together with the nomination of a Director for the Centre. A regular interchange of researchers and students



between UCAM and UNAM will be established. The research teams will generate environmental data, publications, conference talks, and enhance our knowledge of the impacts of mining. We will also train Ph.D and M.Sc students and undergraduates in relevant analytical techniques.

3) Established era (permanent period):

Once the C-MIEP is established and accepted as making an important and useful contribution to environmental physics, a renegotiation for continued participation of UCAM will be evaluated. In the event of positive agreement between UCAM and UNAM, a new contract with new objectives will be formulated.

Expected results, Outcome and Impact

We will create the C-MIEP at the Moquegua campus of UNAM. We expect it to make a significant contribution to the field of environmental physics internationally, contributing scientific knowledge and technological innovation. We also hope that the C-MIEP will assist and inform the development of a more robust regulatory framework for the extractive industries in Peru.

We hope to create an active community of researchers shared between the UCAM and UNAM contributing to environmental science at the highest level internationally. Our contributions will be reflected in scientific publications, intellectual property, engagement with mining companies and the local community, and potentially through commercialisation of technologies we will develop.

Experts from academia and industry from around the world will be encouraged to visit the institute, give seminars, deliver training programs, and engage in research projects with institute researchers.

The institute will be equipped with major, fully operational research and educational facilities. All the equipment acquired during this project will belong to and stay at UNAM to ensure its long-term existence and independence as an internationally leading institute for environmental physics in Peru.



Funding

For the Pilot era (one year duration):

The PI at Cambridge, Prof. C.H.W. Barnes (10% £9,975) will coordinate the project, chairing the weekly meetings in Cambridge and discussing research work in Cambridge and Peru on a daily basis. He will also coordinate with UNAM administration and will visit Moquegua twice. Dr A. Irvine (25% £12,519) coordinate cleanroom fabrication of assay related technology, daily supervision of PDRA2, communication with field workers RA1 and PDRA1.



RA1: We require a bilingual environmental scientist with extensive field experience working in Peru who is able to coordinate around 15 students collecting samples from potentially remote locations in the Moquegua region. This role will also include, teaching, data analysis and frequent travel between the UK and Moquegua. (UCAM FEC RA £44,389.) We expect this role to be taken by our researcher Co-I Eustace Barnes M.Sc.

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For the establishment era (five years duration):

An amount of **S/46'000,000.00** (Forty six million Peruvian Nuevos Soles) is required. The contributions will be distributed as following:

- National University of Moquegua: S/25'000,000
- Regional Government of Moquegua: S/20'000.000
- University of Cambridge, Department of Physics: S/10'000,000





**UNIVERSITY OF
CAMBRIDGE**
Cavendish Laboratory

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Liz Hewitt
HR Operations and Projects Manager
Our Ref: EH/DAC

Dr Elias Escobedo Pacheco
Universidad Nacional de Moquegua
Ciudad Universitaria
Prologación Calle Ancash s/n
Distrito de Moquegua
Provincia Mariscal Nieto
Departamento de Moquegua
Peru

27 February 2017

Dear Dr Escobedo Pacheco

I am writing on behalf of the Department of Physics to invite you to the Cavendish Laboratory as a Visiting Researcher from 15 May 2017 to 15 June 2017 to collaborate with Professor Crispin Barnes.

This visit will be subject, if applicable, to obtaining an appropriate certificate of sponsorship, visa and leave to remain, as required by the United Kingdom Government.

We understand that your expenses (economy airfare travel to and from airports accommodation and maintenance in Cambridge and cost for visa application) will be supported by the Research Collaboration agreement RG85120 signed between the University of Cambridge and the National University of Moquegua.

Please confirm your acceptance of this invitation, together with your date of arrival, to your host and also to myself.

Yours sincerely

Elizabeth Hewitt

Liz Hewitt
HR Operations and Projects Manager



Department of Physics
J J Thomson Avenue
Cambridge CB3 0HE

Tel: +44 (0) 1223 336030

Email: eh299@cam.ac.uk
www.phy.cam.ac.uk



**UNIVERSITY OF
CAMBRIDGE**
Cavendish Laboratory

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Liz Hewitt
HR Operations and Projects Manager
Our Ref: EH/DAC

Mrs Maribel Rocio Pacheco Centeno
Universidad Nacional de Moquegua
Ciudad Universitaria
Prologación Calle Ancash s/n
Distrito de Moquegua
Provincia Mariscal Nieto
Departamento de Moquegua
Peru

27 February 2017

Dear Mrs Pacheco Centeno

I am writing on behalf of the Department of Physics to invite you to the Cavendish Laboratory as a Visiting Researcher from 17 May 2017 to 17 June 2017 to collaborate with Professor Crispin Barnes.

This visit will be subject, if applicable, to obtaining an appropriate certificate of sponsorship, visa and leave to remain, as required by the United Kingdom Government.

We understand that your expenses (economy airfare travel to and from airports accommodation and maintenance in Cambridge and cost for visa application) will be supported by the Research Collaboration agreement RG85120 signed between the University of Cambridge and the National University of Moquegua.

Please confirm your acceptance of this invitation, together with your date of arrival, to your host and also to myself.

Yours sincerely

Liz Hewitt

Liz Hewitt
HR Operations and Projects Manager



IOP | Institute of Physics
Juno Champion

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Dr Rodolfo Sanchez
Universidad Nacional de Moquegua
Ciudad Universitaria
Prologación Calle Ancash s/n
Distrito de Moquegua
Provincia Mariscal Nieto
Departamento de Moquegua
Peru

27 February 2017

Dear Dr Sanchez

I am writing on behalf of the Department of Physics to invite you to the Cavendish Laboratory as a Visiting Researcher from 15 May 2017 to 15 June 2017 to collaborate with Professor Crispin Barnes.

This visit will be subject, if applicable, to obtaining an appropriate certificate of sponsorship, visa and leave to remain, as required by the United Kingdom Government.

We understand that your expenses (economy airfare travel to and from airports accommodation and maintenance in Cambridge and cost for visa application) will be supported by the Research Collaboration agreement RG85120 signed between the University of Cambridge and the National University of Moquegua.

Please confirm your acceptance of this invitation, together with your date of arrival, to your host and also to myself.

Yours sincerely



Liz Hewitt
HR Operations and Projects Manager



UNIVERSITY OF CAMBRIDGE

DEPARTMENT OF PHYSICS

Thin-Film Magnetism Group

CAVENDISH LABORATORY
MADINGLEY ROAD
CAMBRIDGE CB3 0HE

March 9th 2017

Reference: Accommodation and Maintenance during your visit to the Cavendish Laboratory, University of Cambridge.

Dear Mr. Elias Escobedo, Mrs. Maribel Pacheco and Mr. Rodolfo Sanchez,

This is to confirm that we will cover your travel, accommodation and reasonable living costs during your visit to the University of Cambridge.

We have arranged three separate college rooms for you during the period May 15th to June 14th 2017.

We have purchased your flight tickets here in the UK and will send them to you. You can claim for any other reasonable travel costs.

All costs will be supported by the funding from our research Collaboration Agreement (RG85120) signed between the University of Cambridge and the National University of Moquegua.

Do not hesitate to contact me if you require further information

Regards,

Prof. Crispin H. W. Barnes
Head of Thin-Film Magnetism Group
Yours faithfully,

Prof Crispin H. W. Barnes
Head of Thin-Film Magnetism Group

Telephone: +44 (0)1223 337487 E-Mail: chwb101@cam.ac.uk Fax: +44 (0)1223 337271



UNIVERSITY OF CAMBRIDGE

DEPARTMENT OF PHYSICS

Thin-Film Magnetism Group

CAVENDISH LABORATORY
MADINGLEY ROAD
CAMBRIDGE CB3 0HE

Dear Mr. Elias Escobedo,

This is to confirm your activities during your visiting our research group in the Cavendish Laboratory of the University of Cambridge.

May 15th: Arrival to Cambridge, welcoming and accommodation.

May 16th - 19th: Tour around our facilities and rooms in our laboratory. Explanation of the equipment.

May 22nd - 26th: Review of water analysis techniques by Dr. Nimalika Perera.

May 29th - June 2nd: Review of microscopy techniques by Dr. Luis De Los Santos.

June 5th - June 9th: Review of X ray diffraction techniques by Dr. Adrian Ionescu.

June 12th- June13th: Data processing indications and last activities.

June 14th: Departure from Cambridge to Peru.

Do not hesitate to contact me if you require further information

Yours faithfully,

Prof Crispin H. W. Barnes
Head of Thin-Film Magnetism Group



UNIVERSITY OF CAMBRIDGE

DEPARTMENT OF PHYSICS

Thin-Film Magnetism Group

CAVENDISH LABORATORY
MADINGLEY ROAD
CAMBRIDGE CB3 0HE

Dear Mrs. Maribel Pacheco,

This is to confirm your activities during your visiting our research group in the Cavendish Laboratory of the University of Cambridge.

May 15th: Arrival to Cambridge, welcoming and accommodation.

May 16th - 19th: Tour around our facilities and rooms in our laboratory. Explanation of the equipment.

May 22nd - 26th: Review of water analysis techniques by Dr. Nimalika Perera.

May 29th - June 2nd: Review of microscopy techniques by Dr. Luis De Los Santos.

June 5th - June 9th: Review of X ray diffraction techniques by Dr. Adrian Ionescu.

June 12th- June13th: Data processing indications and last activities.

June 14th: Departure from Cambridge to Peru.

Do not hesitate to contact me if you require further information

Yours faithfully,

Prof Crispin H. W. Barnes
Head of Thin-Film Magnetism Group



UNIVERSITY OF CAMBRIDGE

DEPARTMENT OF PHYSICS

Thin-Film Magnetism Group

CAVENDISH LABORATORY
MADINGLEY ROAD
CAMBRIDGE CB3 0HE

Dear Mr. Rodolfo Sanchez,

This is to confirm your activities during your visiting our research group in the Cavendish Laboratory of the University of Cambridge.

May 15th: Arrival to Cambridge, welcoming and accommodation.

May 16th - 19th: Tour around our facilities and rooms in our laboratory. Explanation of the equipment.

May 22nd - 26th: Review of water analysis techniques by Dr. Nimalika Perera.

May 29th - June 2nd: Review of microscopy techniques by Dr. Luis De Los Santos.

June 5th - June 9th: Review of X ray diffraction techniques by Dr. Adrian Ionescu.

June 12th- June13th: Data processing indications and last activities.

June 14th: Departure from Cambridge to Peru.

Do not hesitate to contact me if you require further information

Yours faithfully,

A handwritten signature in cursive script, appearing to read 'C. Barnes'.

Prof Crispin H. W. Barnes
Head of Thin-Film Magnetism Group



KEY TRAVEL

Out of Hours Emergency Support:

+44 (0)20 7843 9602

E-Ticket Receipt

Reference: 5BJOD8
Traveller Name: ESCOBEDO PACHECO/ELIAS MR

Issue Date: 06 Mar 2017
Issuing Airline: British Airways
Ticket Number: 125-1319378373

Table with 9 columns: Flight No, Departs, From, To, Arrives, Class, Bags, Operated By, Airline Ref. It lists four flight segments: LA 2162, BA 2238, BA 2239, and LA 2163.

Air Fare: GBP 432.00
Tax: GBP 75.00GB, GBP 13.10UB, GBP 12.20DY, GBP 37.60HW, GBP 127.90PE
Airline Surcharges: GBP 278.60YQ
Total: GBP 976.40

Endorsements: RESTRICTIONS APPLY NON ENDO
Payment: MSINVRB

Important Information

Airport security and airline check-in may require a printed copy of the itinerary and/or this e-ticket receipt. Travellers must carry government issued photo id (domestic travel only) or passport (valid at least 6 months beyond the return date with 2 clear consecutive pages).

Check-In Information

Please check the airline's website for online check-in.

Guidelines for check-in opening times:

- Domestic: 90 minutes,
- European(EU): 2 hours,
- Non-European: 3 hours,
- Longhaul (incl Israel): 4 hours

For low-cost airline bookings, please note that the majority of these carriers often mandate that the traveller checks in and prints the boarding pass prior to arriving at the airport.

To view your itinerary via your mobile device, install the Key Travel App. Alternatively, you can find your itinerary via www.checkmytrip.com

Visa Information

Please check that you have all the necessary visas, documents and sufficient passport validity. For domestic travel, please carry government issued photo ID or passport.

For entry into the U.S:

You may be eligible to enter the U.S under the Visa Waiver Scheme. If applicable you must hold a machine readable passport and MUST REGISTER on esta.cbp.dhs.gov at least 72 hours before departure.

**KEY TRAVEL****E-Ticket Receipt**

Reference: 5B8DLP
Traveller Name: PACHECO CENTENO/MARIBEL MRS

Issue Date: 07 Mar 2017
Issuing Airline: British Airways
Ticket Number: 125-1319424254

Flight No	Departs	From	To	Arrives	Class	Bags	Operated By	Airline Ref.
LA 2162	14 May 2017 08:55	Coronel Fap Carlos Ciriani Santa Rosa, Tacna (TCQ)	Jorge Chavez International, Lima (LIM)	14 May 2017 10:45	Economy (M)	1 Bag(s)	LAN Airlines	5B8DLP
BA 2238	14 May 2017 20:25	Jorge Chavez International, Lima (LIM)	Gatwick, London (LGW) Terminal: S	15 May 2017 14:45	Economy (Q)	1 Bag(s)	British Airways	5B8DLP
BA 2239	14 Jun 2017 13:50	Gatwick, London (LGW) Terminal: S	Jorge Chavez International, Lima (LIM)	14 Jun 2017 20:25	Economy (Q)	1 Bag(s)	British Airways	5B8DLP
LA 2163	15 Jun 2017 06:20	Jorge Chavez International, Lima (LIM)	Coronel Fap Carlos Ciriani Santa Rosa, Tacna (TCQ)	15 Jun 2017 08:10	Economy (M)	1 Bag(s)	LAN Airlines	5B8DLP

Air Fare GBP 432.00
Tax GBP 75.00GB, GBP 13.10UB, GBP 12.20DY, GBP 37.60HW, GBP 127.90PE
Airline Surcharges GBP 278.60YQ
Total **GBP 976.40**

Endorsements RESTRICTIONS APPLY NON ENDO
Payment MSINVRB

Important Information

Airport security and airline check-in may require a printed copy of the itinerary and/or this e-ticket receipt.

Travellers must carry government issued photo id (domestic travel only) or passport (valid at least 6 months beyond the return date with 2 clear consecutive pages).

For flights or other scheduled transport, each section must be used in the order of travel date or subsequent travel may become invalid with no recourse to refund or change (dependent upon original ticket conditions).

You are responsible for complying with any airline's terms and conditions in relation to check-in and reconfirmation of flights. Please note each ticket carries its own unique terms and conditions including expiration dates and conditions of use. Check the airline's fare rules on their website for more information.

Check-In Information

Please check the airline's website for online check-in.

Guidelines for check-in opening times:

- Domestic: 90 minutes,
- European(EU): 2 hours,
- Non-European: 3 hours,
- Longhaul (incl Israel): 4 hours

For low-cost airline bookings, please note that the majority of these carriers often mandate that the traveller checks in and prints the boarding pass prior to arriving at the airport. Please check on the low-cost carrier's website for further information.

To view your itinerary via your mobile device, install the **Key Travel App**
 Alternatively, you can find your itinerary via www.checkmytrip.com

Visa Information

Please check that you have all the necessary visas, documents and sufficient passport validity.

For domestic travel, please carry government issued photo ID or passport. All photo ID must exactly match the name on the ticket.

For entry into the U.S:

You may be eligible to enter the U.S under the Visa Waiver Scheme. If applicable you must hold a machine readable passport and **MUST REGISTER** on esta.cbp.dhs.gov at least 72 hours before departure. You can travel to the US for 90 days max under the visa waiver scheme, except if applying in person to the U.S Embassy.

Please note: the US Government charges travellers applying for an ESTA (ESTA is valid for 2 years).

40



Out of Hours Emergency Support:

+44 (0)20 7843 9602

E-Ticket Receipt

Reference: 5BJOD8
Traveller Name: SANCHEZ VALENCIA/RODOLFO MR

Issue Date: 06 Mar 2017
Issuing Airline: British Airways
Ticket Number: 125-1319378375

Flight No	Departs	From	To	Arrives	Class	Bags	Operated By	Airline Ref.
LA 2162	14 May 2017 08:55	Coronel Fap Carlos Ciriani Santa Rosa, Tacna (TCQ)	Jorge Chavez International, Lima (LIM)	14 May 2017 10:45	Economy (M)	1 Bag(s)	LAN Airlines	5BJOD8
BA 2238	14 May 2017 20:25	Jorge Chavez International, Lima (LIM)	Gatwick, London (LGW) Terminal: S	15 May 2017 14:45	Economy (Q)	1 Bag(s)	British Airways	5BJOD8
BA 2239	14 Jun 2017 13:50	Gatwick, London (LGW) Terminal: S	Jorge Chavez International, Lima (LIM)	14 Jun 2017 20:25	Economy (Q)	1 Bag(s)	British Airways	5BJOD8
LA 2163	15 Jun 2017 06:20	Jorge Chavez International, Lima (LIM)	Coronel Fap Carlos Ciriani Santa Rosa, Tacna (TCQ)	15 Jun 2017 08:10	Economy (M)	1 Bag(s)	LAN Airlines	5BJOD8

Air Fare GBP 432.00
 Tax GBP 75.00GB, GBP 13.10UB, GBP 12.20DY, GBP 37.60HW, GBP 127.90PE
 Airline Surcharges GBP 278.60YQ
 Total GBP 976.40

Endorsements RESTRICTIONS APPLY NON ENDO
 Payment MSINVRB

Important Information

Airport security and airline check-in may require a printed copy of the itinerary and/or this e-ticket receipt. Travellers must carry government issued photo id (domestic travel only) or passport (valid at least 6 months beyond the return date with 2 clear consecutive pages). For flights or other scheduled transport, each section must be used in the order of travel date or subsequent travel may become invalid with no recourse to refund or change (dependent upon original ticket conditions). You are responsible for complying with any airline's terms and conditions in relation to check-in and reconfirmation of flights. Please note each ticket carries its own unique terms and conditions including expiration dates and conditions of use. Check the airline's fare rules on their website for more information.

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- European(EU): 2 hours,
- Non-European: 3 hours,
- Longhaul (incl Israel): 4 hours

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You may be eligible to enter the U.S under the Visa Waiver Scheme. If applicable you must hold a machine readable passport and MUST REGISTER on esta.cbp.dhs.gov at least 72 hours before departure. You can travel to the US for 90 days max under the visa waiver scheme, except if applying in person to the U.S Embassy. Please note: the US Government charges travellers applying for an ESTA (ESTA is valid for 2 years).

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UNIVERSIDAD NACIONAL DE MOQUEGUA

OFICINA DE RECURSOS HUMANOS
UNIDAD DE ADMINISTRACION DE PERSONAL Y ESCALAFON



INFORME N° : 003-2017-UR /ORH/CO-UNAM
ASUNTO : Informe Escalafonario para emisión de Acto Resolutivo
REFERENCIA : Oficio N° 019-2017-VPI-UNAM.
FECHA : 14 de Marzo del 2017

En atención a lo solicitado se informa:

1.- DATOS PERSONALES:

Apellidos y Nombres : ESCOBEDO PACHECO ELIAS
D.N.I. : 29703472

2.- PERFIL SITUACIONAL:

Situación Laboral : DOCENTE ORDINARIO
Condición : ACTIVO
Categoría : AUXILIAR A TIEMPO COMPLETO
Unidad Operativa : VICEPRESIDENCIA ACADEMICA
 FACULTAD DE INGENIERIAS
Modalidad de Ingreso : CONCURSO PÚBLICO
Resolución de Ingreso : C.O. N° 123-2011-UNAM
Fecha de Resolución : 08/04/2011
Fecha Efectiva de Ingreso : 06/04/2011
Régimen de Pensiones : ONP

3.- ESTUDIOS:

Bachiller : En Ingeniería Química
Facultad : Ingeniería de Procesos
Universidad : Nacional de San Agustín

Título : Ingeniero Químico
Facultad : Ingeniería de Procesos
Universidad : Nacional de San Agustín

Grado Académico : Magister en Ciencia y Tecnología de Alimentos
Universidad : Nacional de San Agustín

4.- CARRERA LABORAL:

CONDICION	VIGENCIA	RESOLUCION	CATEGORIA
Docente Nombrado	06/04/2011	C.O. N° 123-2011-UNAM	Auxiliar a Tiempo Completo





UNIVERSIDAD NACIONAL DE MOQUEGUA
OFICINA DE RECURSOS HUMANOS
UNIDAD DE ADMINISTRACION DE PERSONAL Y ESCALAFON



5.- LICENCIAS:

- No Tiene

6.- SANCIONES:

- No Tiene

Es todo en cuanto informa para los fines pertinentes.

Atentamente.



UNIVERSIDAD NACIONAL MOQUEGUA

ABOG. JUAN LUIS MORÓN PINTO
Jefe de la Oficina de Recursos Humanos



UNIVERSIDAD NACIONAL DE MOQUEGUA

OFICINA DE RECURSOS HUMANOS
UNIDAD DE ADMINISTRACION DE PERSONAL Y ESCALAFON



INFORME N° : 001-2017-UR /ORH/CO-UNAM
 ASUNTO : Informe Escalonario para emisión de Acto Resolutivo
 REFERENCIA : Oficio N° 019-2017-VPI-UNAM.
 FECHA : 14 de Marzo del 2017

En atención a lo solicitado se informa:

1.- DATOS PERSONALES:

Apellidos y Nombres : SANCHEZ VALENCIA, RODOLFO RAFAEL
 D.N.I. : 29381281

2.- PERFIL SITUACIONAL:

Situación Laboral : DOCENTE ORDINARIO
 Condición : ACTIVO
 Categoría : AUXILIAR A TIEMPO COMPLETO
 Unidad Operativa : VICEPRESIDENCIA ACADEMICA
 FACULTAD DE INGENIERIAS
 Modalidad de Ingreso : CONCURSO PÚBLICO
 Resolución de Ingreso : C.O. N° 341-2009-UNAM
 Fecha de Resolución : 04/12/2009
 Fecha Efectiva de Ingreso : 04/12/2009
 Régimen de Pensiones : D.L. 25897 SPP (AFP) PRIMA

3.- ESTUDIOS:

Bachiller : En Ingeniería Química
 Facultad : Ingeniería de Procesos
 Universidad : Nacional de San Agustín

Título : Ingeniero Químico
 Facultad : Ingeniería de Procesos
 Universidad : Nacional de San Agustín

Grado Académico : Diploma de Egresado Maestría en Ciencias: Gerencia
 Auditoria y Gestión Ambiental
 Universidad : Nacional de San Agustín

4.- CARRERA LABORAL:

CONDICION	VIGENCIA	RESOLUCION	CATEGORIA
Docente Nominado	04/12/2009	C.O. N° 341-2009-UNAM	Auxiliar a Tiempo Completo





UNIVERSIDAD NACIONAL DE MOQUEGUA

OFICINA DE RECURSOS HUMANOS
UNIDAD DE ADMINISTRACION DE PERSONAL Y ESCALAFON



5.- LICENCIAS:

DOCUMENTO	CONDICION	MOTIVO	DEL	AL
Resolución Presidencial N° 164-2015-UNAM	Sin goce de remuneraciones	Particulares	16/03/2015	14/06/2015
Resolución Presidencial N° 762-2015-UNAM	Sin goce de remuneraciones	Particulares	15/06/2015	15/12/2015

6.- SANCIONES:

- No Tiene

Es todo en cuanto informa para los fines pertinentes.

Atentamente.



UNIVERSIDAD NACIONAL MOQUEGUA

[Signature]
ABOG. JUAN LUIS MORÓN PINTO
Jefe de la Oficina de Recursos Humanos



UNIVERSIDAD NACIONAL DE MOQUEGUA

OFICINA DE RECURSOS HUMANOS

UNIDAD DE ADMINISTRACION DE PERSONAL Y ESCALAFON



INFORME N° : 002-2017-UR /ORH/CO-UNAM
ASUNTO : Informe Escalonario para emisión de Acto Resolutivo
REFERENCIA : Oficio N° 019-2017-VPI-UNAM.
FECHA : 14 de Marzo del 2017

En atención a lo solicitado se informa:

1.- DATOS PERSONALES:

Apellidos y Nombres : PACHECO CENTENO MARIBEL ROCIO
D.N.I. : 29594083

2.- PERFIL SITUACIONAL:

Situación Laboral : DOCENTE ORDINARIO
Condición : ACTIVO
Categoría : AUXILIAR A TIEMPO COMPLETO
Unidad Operativa : VICEPRESIDENCIA ACADEMICA
 FACULTAD DE INGENIERIAS
Modalidad de Ingreso : CONCURSO PÚBLICO
Resolución de Ingreso : C.O. N° 325-2009-UNAM
Fecha de Resolución : 04/12/2009
Fecha Efectiva de Ingreso : 04/12/2009
Régimen de Pensiones : D.L. 25897 SPP (AFP) INTEGRA

3.- ESTUDIOS:

Bachiller : En Ciencias Biológicas
Facultad : Ciencias Biológicas y Agropecuarias
Universidad : Nacional de San Agustín

Título : Biólogo
Facultad : Ciencias Biológicas y Agropecuarias
Universidad : Nacional de San Agustín

Grado Académico : Magister en Docencia Universitaria y Gestión Educativa
Universidad : Privada de Tacna

4.- CARRERA LABORAL:

CONDICION	VIGENCIA	RESOLUCION	CATEGORIA
Docente Nombrado	04/12/2009	C.O. N° 325-2009-UNAM	Auxiliar a Tiempo Completo





UNIVERSIDAD NACIONAL DE MOQUEGUA

OFICINA DE RECURSOS HUMANOS
UNIDAD DE ADMINISTRACION DE PERSONAL Y ESCALAFON



5.- LICENCIAS:

DOCUMENTO	CONDICION	MOTIVO	DEL	AL
Resolución de C.O. N° 0148-2013-UNAM	Sin goce de remuneraciones	Particulares	29/04/2013	28/04/2014
Resolución de C.O. N° 189-2014-UNAM	Sin goce de remuneraciones	Particulares	29/04/2014	28/04/2015

6.- SANCIONES:

- No Tiene

Es todo en cuanto informa para los fines pertinentes.

Atentamente.



UNIVERSIDAD NACIONAL MOQUEGUA

 ABOG. JUAN LUIS MORÓN PINTO
 Jefe de la Oficina de Recursos Humanos

**CURRICULUM VITAE NO
DOCUMENTADOS**

RESUME



Chemical Collegiate engineer, with Title of The Second Speciality in IT Engineering, Master in Management, Audit and Environmental Management, Graduate in Integrated Systems of Environmental Management, and in Hygiene and Industrial safety- Adviser and Consultant.

Professional with experience in Management of projects and activities in the public sector. Technical and professional support in fieldworks in Quality Control and Quality Assurance, in Sulphuric Acid Plants and Effluent Plants, Oxygen Plants, Mineral processing Plants. Experience in Health, Security and Environment, Industrial Plants.

Professor since 1992, with academic experience in Public and Private Universities, as well as technical Institutes. Experience in organization and planning, good human relationship. Proactive attitude and ready to work under pressure and in equipment.

Respectful, honest and loyal to fulfilling procedures during the work.

I. DATOS PERSONALES

NOMBRE y APELLIDOS : RODOLFORAFEL
SANCHEZ VALENCIA
DNI : 29381281
L.M. : 3002332603
BREVETTE : H29381281 CLASE A
CATEGORIA : Dos B
DIRECCION : Mz-1-Lt-20 Urb. LIBERACION
Pampa Inalámbrica ILO - PERU
OCUPACION : **DOCENTE UNIVERSITARIO**
Universidad Nacional de Moquegua
CONSULTOR HSE
SEGURIDAD & MEDIO AMBIENTE
INSPECCIONES TECNICAS DE SEGURIDAD.
ELABORACION DE PLAN DE SEGURIDAD INDUSTRIAL.
ELABORACION DE PERFILES Y PROYECTOS.
ELABORACION DE :DIA, PAMA, EIA, DPA.
ELABORACION DE SISTEMAS DE GESTION
AMBIENTAL
DISEÑO e IMPLEMENTACION DE AUDITORIAS
AMBIENTALES.
EVALUACION DE IMPACTO AMBIENTAL.
ESTUDIO DE IMPACTO VIAL.
ESTUDIO DE SEGURIDAD INTEGRAL.
PLAN DE MANEJO AMBIENTAL
TELEFONO : 953 - 506477 , 962 906909
E-MAIL : rodolfosanchez001@gmail.com
PROFESION : INGENIERO QUIMICO
REGISTRO DE COLEGIO : CIP - 38681
MAGISTER : GERENCIA AUDITORIA GESTION AMBIENTAL

II. ESTUDIOS DE DIPLOMADOS, POST GRADO y MAESTRIA

- INGENIERIA INFORMATICA
ESCUELA DE PRODUCCIÓN y SERVICIOS
UNIVERSIDAD NACIONAL DE SAN AGUSTIN - AREQUIPA
- GERENCIA, AUDITORIA y GESTION AMBIENTAL
FACULTAD DE CIENCIAS NATURALES y FORMALES
UNIVERSIDAD NACIONAL DE SAN AGUSTIN - AREQUIPA
- DIPLOMADO EN SISTEMAS INTEGRADOS DE GESTION AMBIENTAL
ISO 9001: 2008 - ISO 14001 : 2004 - OHSAS 18001 : 2007
- DIPLOMADO EN SEGURIDAD E HIGIENE INDUSTRIAL - SA 8000,
SITEMA OHSAS 18001: 2007
- DIPLOMADO EN DEFENSA NACIONAL Y RELACIONES
INTERNACIONALES

III. TITULOS y GRADOS

- INGENIERO QUIMICO
- BACHILLER EN INGENIERIA QUIMICA
FACULTAD DE INGENIERIA DE PROCESOS
ESCUELA PROFESIONAL DE INGENIERIA QUÍMICA
UNIVERSIDAD NACIONAL DE SAN AGUSTIN - AREQUIPA
- DIPLOMA DE EGRESADO DE LA MAESTRIA EN GERENCIA AUDITORIA
y GESTION AMBIENTAL- UNIVERSIDAD NACIONAL DE SAN AGUSTIN
de AREQUIPA.

IV. ASOCIACIONES PROFESIONALES

COLEGIO DE INGENIEROS DEL PERU
CIP N° 38681

V. CONOCIMIENTO DE IDIOMAS

INGLES	90% (Speak, Read and Write)
ALEMAN	40%
ITALIANO	60%
JAPONES	20%

VI. EXPERIENCIA PROFESIONAL

- DIBUJANTE DE DISEÑO de INGENIERIA "SENCICO" - AREQUIPA 1985
- TECNICO OPERADOR en PLANTA CONCENTRADORA Cerro Verde - AREQUIPA 1989.
- **SUPERVISOR** de OBRAS MOVIMIENTO DE TIERRAS en el PROYECTO de EXPLOTACIÓN DE MINERALES CUPRO-ARGENTIFEROS **Compañía Minera LICONA - COMOSUR** - Costanera norte ILO 1990.
- DOCENTE y COORDINADOR del Programa de INGLES - CEP SAN LUIS ... 1991
- CATEDRATICO "UNIVERSIDAD PRIVADA DE TACNA" - ILO 1991 - 1995.
- CATEDRATICO "UNIVERSIDAD PRIVADA DE MOQUEGUA" - ILO 1996 - 2003.
- CATEDRATICO "UNIVERSIDAD NACIONAL DE MOQUEGUA" - ILO 2009.
- PONENTE en el Programa de Entrenamiento Registros Públicos - ILO 1995
- **INSPECTOR** Sardina Purchasing KYUNG YANG TRADING CO. KOREA - ILO 1996.
- **INSTRUCTOR** DEL PROGRAMA NACIONAL DE INFORMATICA MS OFFICE 97 - REDES - INTERNET - PROGRAMACIÓN - **SENATI** - ILO 1995 - 1998 - 1999

- **PONENTE** en WINDOWS NT 4,0 y Redes MINSA – MOQUEGUA 1998.
- **COORDINADOR DEL PROYECTO MINIMIZAR LA CONTAMINACIÓN ATMOSFERICA- MONITOREO DE CALIDAD DE AIRE – RED DE MONITOREO DE SO₂** MUNICIPALIDAD PROVINCIAL DE ILO 1999 – 2000
- **ASESOR y CONSULTOR EN ECOLOGÍA, MEDIO AMBIENTE y BIODIVERSIDAD - MODULO de SERVICIOS ILO MSI2001 - 2002.**
- **ELABORACION y EVALUACION DEL ESTUDIO DIAGNOSTICO PESQUERO EN ILO EIA – AREAS DE MANEJO y CULTIVO ZONA NORTE –IMARPE - ILO.**
- **DOCENTE y COORDINADOR del Programa de INGLES – IPP CIRO ALEGRIA....2004**
- **DOCENTE y COORDINADOR del Programa de INGLES– IEP LITTLE ANGELS...2005**
- **ASESOR EXTERNO - EVALUACION, ESTUDIOS de IMPACTO AMBIENTAL - MSI – ILO 2001, 2002, 2003, 2004.**
- **INSPECTOR INDECI ITS Región Moquegua –Ilo y Mariscal Nieto2005, 2006, 2007.**
- **INSPECTOR PCER “ Estimador de Riesgo “ Región Moquegua - 2008**
- **FORMULADOR DE PERFILES y EXPEDIENTE TECNICOS de acuerdo a la Normatividad SNIP :**
 - Municipalidad Provincial de Ilo ... 2003
 - Municipalidad Distrital de Torata.. 2007
 - Gobierno Regional de Moquegua ...2008
 - Gobierno Regional de Moquegua .. 2012

ULTIMOS CARGOS DE TRABAJO

- **DIRECTOR – DIRECCION DE DESARROLLO URBANO AMBIENTAL MUNICIPALIDAD PROVINCIAL DE ILO – 2003.**
- **EVALUACION y VALORACION DE ESTUDIOS DE IMPACTO AMBIENTAL.**
- **JEFE DEL AREA DE LOGISTICA EMPRESA JIMENEZ E,I.R.L.-ILO - 2004.**
- **JEFE DE OPERACIONES Y OBRAS DE MOVIMIENTO DE RESIDUOS DE ESCORIA DE FUNDICION SPCC – ILO**
- **SUPERVISION DE OBRAS CIVILES, MOVIMIENTO DE TIERRAS, PREPARACION E INSTALACION DE COLUMNAS, VIGAS, ZAPATAS y TRABAJO DE ENCOFRADOS. PREPARACION DE TERRENO PARA VACIADO DE LOSAS Y VEREDAS DE CONCRETO. PRUEBAS DE CONTROL DE CALIDAD DE MEZCLAS (PROBETAS) Y ESTRUCTURAS. EMPRESA INGTEC E.I.R.L. - 2005.**
- **ASESOR EXTERNO EN COMERCIALIZACION DE MATERIALES INDUSTRIALES EMP. “EL INDUSTRIAL SCRL “ 2003 - 2005.**
- **ASESOR – CONSULTOR TRATAMIENTO DE AGUAS RESIDUALES – BENEFICIOS ECONOMICO-SOCIAL - RASER SAC PROYECTOS – LIMA 2005**
- **CIVIL/STRUCTURE/MECHANICAL CHECK OUT-TECHNICAL SUPPORT & INTERPRETER del PROYECTO :**
 - PLANTA DE ACIDO SULFURICO N° 2
 - PLANTA DE TRATAMIENTO DE EFLUENTES N° 2.
- **KVAERNERPERUPROYECTO MODERNIZACION DE LA FUNDICION DE ILOSPCC - 2006**
- **SERVICIO DE CONSULTORIA: ELABORACION DE PERFILES DE INVERSION PUBLICA POR EL SNIP – Enero-Febrero-Marzo-Abril-Mayo-Junio2007 MPI – ILO.**
- **ASESORIA EXTERNA y ELABORACION de la EVALUACION DE IMPACTO AMBIENTAL - PLANTA DE HARINA y ACEITE DE PESCADO – ARMADORES PESQUEROS S.A. Enero - Febrero 2007.**
- **ASESORIA EXTERNA y ELABORACION de la EVALUACION DE IMPACTO AMBIENTAL - PLANTA DE INDUSTRIALIZACION y PROCESO DEL PESCADO – ALIMENTOS CONGELADOS S.A.C. Agosto 2007.**
- **SERVICIO DE CONSULTORIA: ELABORACION DEL EXPEDIENTE TECNICO IMPLEMENTACION DEL LABORATORIO AMBIENTAL DE AGUA, SUELOS Y AIRE de la MUNICIPALIDAD DISTRIITAL DE TORATA– Julio, Agosto, Setiembre, Octubre 2007.**
- **SERVICIO DE CONSULTORIA :REFORMULACION DEL PERFIL FORTALECIMIENTO DEL SERVICIO DE MONITOREO AMBIENTAL EN LA REGION MOQUEGUA**
 - Noviembre – Diciembre 2007.

- **INGENIERO RESIDENTE DE OBRAS CIVILES y METAL MECANICA** "REMODELACION DE INFRAESTRUCTURA CIVIL - REVESTIMIENTO EPOXICO DE TANQUES DE COMBUSTIBLE".
SOLDADURA DE TUBERIAS Y PLANCHAS PARA TANQUES DE ALMACENAMIENTO, CONSTRUCCION DE CIMIENTOS, ZAPATAS, ENCOFRADOS y COLUMNAS, OBRAS DE CONCRETO ARMADO, LOSA ALIGERADA
INSTALACIÓN DE POLINES y FAJAS PARA SALA DE ENSAQUE.
FABRICACIÓN DE ESTRUCTURAS METÁLICAS,
PINTADO INDUSTRIAL DE TANQUES DE ALMACENAMIENTO DE COMBUSTIBLES y ACEITES, CONTENEDORES.
PLANTA PESQUERA TASA - ILO "EMPRESA TANOS E.I.R.L." - 2008.
- MIEMBRO de la ASOCIACION de PROMOCION E INTEGRACION de COMPETITIVAD EMPRESARIAL PERU - **PICE PERU**.....Noviembre 2008.
- **SERVICIO DE CONSULTORIA "EVALUACION DEL RELLENO SANITARIO MUNICIPAL"** de 1500 tn/mes - MPI - Febrero-Marzo - 2009.
- **SERVICIO DE CONSULTORIA "ELABORACION DE INDICADORES AMBIENTALES - DIMENSION AMBIENTAL"** Gerencia de Planificación y Presupuesto MPI - Abril, Mayo - 2009.
- **RESIDENTE DE OBRA Y RESPONSABLE DE SEGURIDAD Y MEDIO AMBIENTE EN LA "INSTALACION DE TUBERIA HDPE" PLANTA DE OXIGENO - FUNDICION DE ILO - SPCC - ILO** a cargo de la Empresa **INGTEC E.I.R.L.**..... Mayo - Junio - 2009.
- Elaboración del Proyecto "FORTALECIMIENTO DE LAS PYMES" Región Moquegua - **UNIVERSIDAD NACIONAL DE MOQUEGUA** - Agosto - 2009.
- **CATEDRATICO EN LA UNIVERSIDAD JOSE CARLOS MARIATEGUI - UJCM - 1996- 2003, 2009 - Especialidad de Ingeniería Mecánica Eléctrica**
- **CATEDRATICO EN LA UNIVERSIDAD NACIONAL DE MOQUEGUA - UNAM - 2009** Especialidad de Ingeniería Ambiental - **Coordinador Sede - ILO.**
- **INSTRUCTOR DOCENTE ESCUELA DE NEGOCIOS NEUMANN "NEUMANN BUSINESS SCHOOL" PAE en ADMINISTRACION DE EMPRESAS** Curso :**GESTION AMBIENTAL** MARZO 2010.
- **ADMINISTRADOR GENERAL DIGAF - UNIVERSIDAD NACIONAL DE MOQUEGUA - UNAM - 2010**
- **CONSULTOR ASOCIADO OIKOS - CONSULTORIA AMBIENTAL SAC. Arequipa- 2011**
- **DIRECTOR DE LA ESCUELA PROFESIONAL DE INGENIERIA AMBIENTAL UNIVERSIDAD NACIONAL DE MOQUEGUA - UNAM - 2011.**
- **CONSULTOR HSE - EXPEDIENTE TECNICO para INSPECCION DE DETALLE del CEP RAMON CASTILLA - TOQUEPALA, CEP JUAN VELEZ DE CORDOVA - CUAJONE 2011**
- **GERENTE de la SUB REGION ILO - Enero - Julio 2012 - Provincia de Ilo - GRM.**
- **Asesor de Proyectos SNIP - GERENCIA REGIONAL DE DESARROLLO ECONOMICO- GRM** Diciembre 31, 2012.
- **ADMINISTRADOR - DESEMBARCADERO PESQUERO ARTESANAL ILO - Febrero - Julio 2013.**
- **INGENIERO DE SEGURIDAD & SANEAMIENTO AMBIENTAL**
- Campaña a Empresa Southern Peru Copper Corporation Area Ilo
- Campaña a Empresa Southern Peru Copper Corporation Area Toquepala
- Campaña a Empresa Southern Peru Copper Corporation Area Cujajone por la **EMPRESA H&G EIRL** Julio - Diciembre 2013.

VII. PRACTICAS EJECUTADAS

- **MOBIL OIL DEL PERU - Planta de Lubricantes - CALLAO** 1984
- **LABORATORIO DE CONTROL DE PRODUCCION** Fundición SPCC - ILO 1985
- **PLANTA CONCENTRADORA SPCC - TOQUEPALA** 1986
- **DEPARTAMENTO DE CONTROL DE CALIDAD FABISA - AREQUIPA** 1986
- **DEPARTAMENTO DE METALURGIA** Fundición SPCC - ILO 1987
- **DIVISION DE CONTROL DE CALIDAD** Refinería RCu MINERO PERU-ILO 1988
- **PLANTA CONCENTRADORA SPCC - CUAJONE** 1988
- **PLANTA INDUSTRIAL DIVISION PLANTAS AUXILIARES - COMPLEMENTARIAS** Cerro Verde MINERO PERU - AREQUIPA 1989

VIII. PARTICIPACION EN DIFERENTES SEMINARIOS Y CONFERENCIAS.

EVENTOS EN LIMA

- DIPLOMA del "III Congreso Peruano en Ingeniería Química" - 1980
- DIPLOMA - CERTIFICADO PEDAGÓGICO - ADMINISTRATIVO CCECP Febrero 1995
- CERTIFICADO en Instalación y Administración en WINDOWS 95 - WINDOWS NT 4,0 - LOGOCOPIA 1999
- CERTIFICADO en Suficiencia en los Cursos de MS - OFFICE 97 e INTERNET - LOGOCOPIA 1999
- CERTIFICADO de Seminario actualizado " CRITERIOS ESTRATEGICOS PARA LA ORGANIZACIÓN Y GESTION DE UNA ENTIDAD " INDAE - Febrero 2007.
- CERTIFICADO "Políticas de Trabajo para una Gestión Social Exitosa" MIMDES-INABIF ...Marzo 2007.
- CONSTANCIA "PASANTE - PROGRAMA DE PASANTIAS LIDERES DE CENTROS POBLADOS VINCULADOS CON LA ACTIVIDAD MINERA Octubre 2011 MINISTERIO DE ENERGIA y MINAS - ESAN Octubre 2011.
- DIPLOMA DE HONOR "LIDER MAS PARTICIPATIVO" en el desarrollo de módulos del Programa de Pasantías a LIDERES DE CENTROS POBLADOS VINCULADOS CON LA ACTIVIDAD MINERA Octubre 2011. MINISTERIO DE NERGIA y MINAS - ESAN.
- CERTIFICADO CAFAE de participación en el Seminario " INICIO DE OPERACIONES 2012 A TRAVES DE LOS MODULOS EN EL SIAF - SP" Abril 2012.
- CERTIFICADO de participación en la 2^{DO} SEMINARIO PREPARATORIO DE LA CUMBRE ACADÉMICA INVESTIGACION - INNOVACION & DESARROLLO - UNIÓN EUROPEA, AMÉRICA LATINA Y EL CARIBE Octubre 2012.
- DIPLOMA DE HONOR en la PONENCIA de participación en el "I SIMPOSIO NACIONAL DE EXPERIENCIAS DE LIDERES DE PASANTIAS MINERAS 2013" Diciembre 11, 12, 13 - 2013 - MINISTERIO DE NERGIA y MINAS - ESAN.

EVENTOS EN ILO

- CERTIFICADO como ORGANIZADOR del "I Seminario Transformación De Vehículos importados UNIVERSIDAD PRIVADA DE MOQUEGUA - 1996
- CERTIFICADO del "I Seminario WINDOWS 95 y SUS APLICACIONES AHORA" SENATI - ILO 1996
- CERTIFICADO en el Seminario TECNOLOGIA de AVANZADA - INSTALACIÓN y ADMINISTRACIÓN de REDES E INTRANET IST. LUIS E. VALCARCEL ILO 1997
- CERTIFICADO como ORGANIZADOR del "I Seminario Liderazgo" UNIVERSIDAD PRIVADA DE MOQUEGUA - 1997
- CERTIFICADO como PANELISTA del "I SEMINARIO - DERECHO EMPRESARIAL - SISTEMA DE REESTRUCTURACION PATRIMONIAL y PROCEDIMIENTO TRANSITORIO" Organizado por el COLEGIO de ABOGADOS de AREQUIPA 2000.
- CERTIFICADO como PANELISTA del "I CONVERSATORIO de DERECHO CONSTITUCIONAL" Organizado por el COLEGIO de ABOGADOS de AREQUIPA 2000.
- CERTIFICADO como EXPOSITOR " REGLAMENTOS DE SEGURIDAD SOBRE ESTACIONES DE SERVICIOS, PUESTOS DE VENTA DE COMBUSTIBLES y DE INSTALACIONES PARA GLP" Programa de Capacitación ITS - INDECI. 2006
- CERTIFICADO como ASISTENTE "TRABAJOS EN ESPACIOS CONFINADOS" - 2006
- CERTIFICADO como ASISTENTE " PROTECCION CONTRA CAIDAS" - 2006

- CERTIFICADO del "PRIMER ENCUENTRO INTERNACIONAL DE MEDIO AMBIENTE" ILO TE QUIERO VERDE Y LOMAS DE ILO - 2006.
- CERTIFICADO de Ponencia "OPORTUNIDADES DE INVERSION" Cooperativa de Ahorro y Crédito ILO - SPCC - 2006.
- CERTIFICADO DE CAPACITADOR
 - SISTEMAS de SEGURIDAD INFORMATICA - PROGRAMACION & SISTEMAS
 - INFORMATICA ADMINISTRATIVA
- CENTRO DE CAPACITACION INFORMATICA - UNIVERSIDAD NACIONAL DE SAN AGUSTIN - ILO 2007-2008 - 2009.
- PROCESO DE REDISEÑO PLAN DE DESARROLLO DE ILO - Gerencia de Planeamiento Estratégico. ILO - 2009
- CERTIFICADO de Ponencia "PLANES DE NEGOCIOS PARA UNIVERSITARIOS" MPI - CETICOS-PICE PERU - 2009.
- CERTIFICADO de Participación "JORNADAS DE SEGURIDAD Y PREVENCIÓN DE RIESGOS EN PROYECTOS" Colegio de Ingenieros del Perú - Consejo Departamental Moquegua - ILO 2009
- CERTIFICADO del SEMINARIO - TALLER "OPORTUNIDADES de INVESTIGACION en INGENIERIA" Universidad José Carlos Mariátegui. OCTUBRE - 2009
- CERTIFICADO del FORO PERSPECTIVA del COMPLEJO PETROQUIMICO de las LOMAS de ILO - MPI DICIEMBRE 2009.
- CERTIFICADO del SEMINARIO - TALLER "METODOLOGIA y TECNICAS de INVESTIGACION CIENTIFICA y TECNOLOGICA" UNAM - ENERO 2010.
- CERTIFICADO del FORO "METODOLOGIA de DESARROLLO del Instrumento de Gestión "ESTUDIO DE IMPACTO AMBIENTAL" IMARPE - ENERO - 2010.
- CERTIFICADO de ORGANIZADOR en el Curso "NATAACION BUCEO y SUPERVIVENCIA BASICO I" Enero - Febrero 2011.
- CERTIFICADO de PONENTE en el Seminario SEMANA AMBIENTAL Junio 2011.
- CERTIFICADO de ORGANIZADOR en el Seminario SEMANA AMBIENTAL Junio 2011.
- CERTIFICADO de participación en el PROGRAMA RESOLUCION DE CONFLICTOS INTERPERSONALES Y RENDIMIENTO LABORAL PARA SER COMPETITIVOS Mayo 2012.
- CERTIFICADO de ORGANIZADOR en el Curso Taller de IDENTIFICACION , FORMULACION, EVALUACION Y GESTION DE PROYECTOS DE INVERSION PUBLICA - SNIP Mayo 2012.
- CERTIFICADO de EXPOSITOR en el Seminario CONFERENCIA DE ACTUALIDAD EN INGENIERIA Junio 2012.
- CERTIFICADO de ORGANIZADOR en el Seminario Taller "EMPRENDIMIENTO PARA EL DESARROLLO ECONOMICO Y SOCIAL DE ILO" Universidad José Carlos Mariátegui - Septiembre 2012
- CERTIFICADO de Asistencia al Seminario DESARROLLO y PERSPECTIVAS DE GAS NATURAL y PRECIOS DE COMBUSTIBLES EN EL PERU - OSINERGMIN - Mayo 23, 2013
- CERTIFICADO de EXPOSITOR en el Seminario COMPORTAMIENTO ORGANIZACIONAL - Ingeniería Sistemas e Informática - UNAM - Agosto 2013
- CERTIFICADO de ORGANIZADOR del Seminario Taller EL PROCESO DE ZONIFICACION ECOLOGICA ECONOMICA DEL DEPARTAMENTO DE MOQUEGUA - GRM - UNAM - Agosto 2013.
- CERTIFICADO de PONENTE en el Programa de Orientacion Vocacional de la Universidad Nacional de Moquegua, Febrero 2013.

**PROGRAMA DE POST GRADO EN INGENIERIA INFORMATICA
"UNIVERSIDAD NACIONAL DE SAN AGUSTIN"**

- CERTIFICADO del "Curso de Arquitectura de PCs" 2001
- CERTIFICADO del "Curso de Base de Datos" 2001
- CERTIFICADO del "Curso de Programación Aplicada" 2001
- CERTIFICADO del "Curso de Ingeniería del Software" 2001

- CERTIFICADO del "Curso de Análisis de Sistemas" 2001

EVENTOS EN AREQUIPA

- CERTIFICADO del "I Seminario Nacional en Ingeniería Química" 1981
- CERTIFICADO del "I Seminario de Reestructuración Curricular en Ingeniería Química" 1982
- CERTIFICADO del "Seminario Desarrollo de la Ingeniería Industrial en el Sector Empresarial Industrial" 1984
- CERTIFICADO del "IV Simposium Congreso en Ingeniería Metalúrgica" 1987
- CERTIFICADO de "Actualización Económica y Financiera" 1987
- CERTIFICADO del "I Forum in Ingeniería Química" 1988
- DIPLOMA del "Curso de Alemán GRUNDKURS I" Goethe Institut 1979
- DIPLOMA del "Curso de Alemán GRUNDKURS II" Goethe Institut 1980
- DIPLOMA del "Curso de Inglés" ICPNA 1979
- CERTIFICADO del "Curso de Inglés" ASDI 1986
- CERTIFICADO del "Curso de Inglés Avanzado" ICPNA 1987
- CERTIFICADO del "Curso Básico de Programación de PCs" - CESCA 1985
- CERTIFICADO del "Curso de Programación de PCs" CYBERNETICS CENTER 1986
- CERTIFICADO del "Curso de Lotus 123" SISTEMAS S.A. 1989
- CERTIFICADO del "Curso de Dbase III Plus" SISTEMAS S.A. 1989
- DIPLOMA del "Curso de Sistemas Operativos "INSTITUTO DEL SUR" 1990
- CERTIFICATE FOR ATTENDING THE SEMINAR "LEARNING STRATEGIES - BRAIN GYM - THE INSPIRING TEACHER - UNCOVERING GRAMMAR - REFLECTIVE TEACHING October 2003
- CERTIFICADO de PARTICIPACION en INSTRUMENTOS DE CONTROL en LINEA en PLANTAS de TRATAMIENTO DE AGUA POTABLE y AGUA RESIDUAL en el PERU. Marzo 2010.
- CERTIFICADO de ASISTENTE al Curso **SISTEMA DE GESTION DE LA CALIDAD EN LABORATORIO ISO/IEC 17025:2005** - Unidad de Posgrado UNSA - Agosto 2013.

EVENTOS EN TACNA

- CERTIFICADO en el "Curso de Mantenimiento y Ensamblaje de PCs" COMPU SERVI 2000 TACNA - 1993
- CERTIFICATE SEMINAR TEACHING VOCABULARY TO CHILDREN MEANINGFULLY TACNA June 2003
- CERTIFICATE SEMINAR TEACHING GRAMMAR and VOCABULARY TO ADOLESCENTS TACNA June 2003
- CERTIFICADO del Curso "AUDITOR INTERNO SISTEMA DE GESTION INTEGRADO ISO 9001 - ISO 14001 - OHSAS 18001. TACNA Octubre 2007
- CERTIFICADO del PROGRAMA MIDDLE MANAGEMENT - DIRECCION DE PROYECTOS bajo el Enfoque del PMI - NEWMANN BUSINESS SCHOOL S.A.C. Mayo 13 - 2013
- CERTIFICADO de asistencia al Taller FORMULACION DE PROYECTOS DE INVESTIGACION EN BIOTECNOLOGIA Y MEDIO AMBIENTE - UJBG - Setiembre 2013 - TACNA.

EVENTOS EN MOQUEGUA

- CERTIFICADO del CONSEJO NACIONAL de CIENCIA y TECNOLOGIA por su participación en la IV FERIA NACIONAL de CONCYTEC Moquegua 1994
- CERTIFICADO del PROGRAMA DE CAPACITACION de INSPECTORES TECNICOS DE SEGURIDAD EN DEFENSA CIVIL Moquegua 2005.

- CERTIFICADO como EXPOSITOR " **REGLAMENTOS DE SEGURIDAD SOBRE ESTACIONES DE SERVICIOS, PUESTOS DE VENTA DE COMBUSTIBLES y DE INSTALACIONES PARA GLP**" Programa de Capacitación ITS - INDECI. 2006
- CERTIFICADO de Ponencia " **ARQUITECTURA Y MEDIO AMBIENTE**" IV Congreso Macro Regional Sur realizado en MOQUEGUA - CAP - Dic - 2006
- CERTIFICADO de Ponencia " **ANALISIS DEL IMPACTO AMBIENTAL DEL PROYECTO MINERO - QUELLAVECO**" Forum Panel TUMILACA-MOQUEGUA Marzo - 2008.
- CERTIFICADO de Asistencia " **TALLER DE FORMULACION Y EJECUCION DE PROYECTOS DE INVESTIGACION CON CANON MINERO**" - Setiembre 2011
- CERTIFICADO de ORGANIZADOR del evento " **INVERSION MINERA Y DERECHO AMBIENTAL** " Universidad José Carlos Mariátegui y el Colegio de Abogados Octubre - 2011.
- CERTIFICADO de Asistencia al " **I CONGRESO AMBIENTAL " Gestión Ambiental : Un Componente del Desarrollo Integral Sostenible de nuestra Región -** Noviembre 2011.
- CERTIFICADO de **PONENTE** en el " **I FORUM GESTION AMBIENTAL PARA EL DESARROLLO SOSTENIBLE** " organizado por la Municipalidad Distrital de TORATA - Septiembre 2011.
- CERTIFICADO de **PONENTE** en el " **SIMPOSIO DE INVESTIGACION UNIVERSITARIA** " organizado por la Universidad Nacional de Moquegua, Marzo 2012.
- CERTIFICADO de **ASISTENTE** en el " **SEMINARIO TALLER EVALUACION y REDISEÑO CURRICULAR** " UNAM - Agosto 2012

OTROS EVENTOS

- CERTIFICADO de la "V Convención Nacional en Ingeniería Química" CUSCO 1982
- CERTIFICADO del "Curso de Diseño Instruccional" ARICA - CHILE 1993.
- CERTIFICADO del " Primer Encuentro **DESARROLLO MINERO AGRICOLA CON PRESERVACION DEL MEDIO AMBIENTE y LA VIDA**" TORATA - 2006.
- CONSTANCIA " **PASANTE - PROGRAMA DE INVESTIGACION CIENTIFICA : ECOLOGIA MARINA Y MEDIO AMBIENTE** Universidad Andrés Bello - **CHILE** Enero 2011.
- CERTIFICADO de Participante en el Seminario Internacional " **GESTION DEL CONOCIMIENTO - INVESTIGACION E INFORMACION APLICADA AL SECTOR FORESTAL Y DE FAUNA**" USAID - IQUITOS : Agosto 2011.
- CERTIFICADO de **PONENTE** en el **I FORUM DE GESTION AMBIENTAL PARA EL DESARROLLO SOSTENIBLE**, Setiembre 2011.

IX. CARTAS DE REFERENCIA Y/O FELICITACION

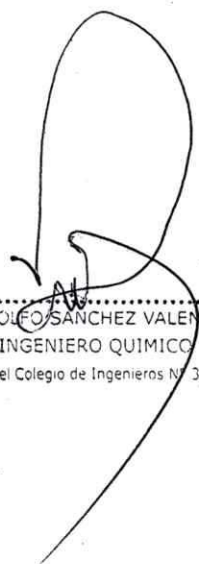
- CARTA de ACREDITACION - QUINTO SUPERIOR - Director de la Escuela Profesional de Ingeniería Química Ing° Raúl Paz Zegarra 1987
- CARTA de REFERENCIA por el Superintendente de la "Planta Concentradora" MILL SITE - SPCC - CUAJONE Ing. Rogger L. Amelunxen 1988
- Carta de Garantía del Gerente de COMOSUR Sr. Claudio Mejía Solís ILO 1990
- Carta de Felicitación del Curso de Inglés Avanzado por English Adviser Mr. Gregor Fraser Chisholm - ILO 1992
- Carta de Agradecimiento y Felicitación JURADO CALIFICADOR 1998 ADE - ILO
- Carta de Felicitación del Gerente de Modulo de Servicios Ilo Eco. Ursula Naranjo Rivera - ILO 2002.
- CARTA de REFERENCIA** : Engineering Process Manager Ing° Don Kime - 2006 Kvaerner Perú - Smelter SPCC - ILO.
- CARTA de REFERENCIA** : Project Manager "Planta de Acido Sulfúrico # 2" Planta de Efluentes # 2 - SPCC - ILO Ing. Ross Turner - 2006 Kvaerner Perú.

- ❑ **CARTA de REFERENCIA** : Consultor HSE - ALIMENTOS CONGELADOS SAC EVALUACION DE IMPACTO AMBIENTAL Planta de Frío Cata Catas - ILO -2007.
- ❑ **CARTA de REFERENCIA** : Consultor HSE - ARPES SA -EVALUACION DE IMPACTO AMBIENTAL Planta de Harina de Pescado y Aceite Cata Catas-ILO-2007.
- ❑ CARTA N° 0047-2011-VPAC/CO/UNAM , FELICITACION por la participación en las CHARLAS MAGISTRALES en el evento SEMANA AMBIENTAL , junio 2011
- ❑ CARTA N° 0049-2011-VPAC/CO/UNAM ,FELICITACIONY RECONOCIMIENTO por la ELABORACION DE LAS SEPARATAS DE INFORMATICA : MS-OFFICE 2007, para el CURSO PREPARADO a la CIA ANFIBIA N° 113 - ILO, julio 2011.
- ❑ **CARTA de REFERENCIA** : por el Presidente del Gobierno Regional de Moquegua - GRM - **Ing. Martín Vizcarra Cornejo** - 2012.
- ❑ Constancia de Acreditación de **INSPECTOR TECNICO DE SEGURIDAD** en DEFENSA CIVIL- MOQUEGUA - 2005.
- ❑ Constancia Autorización para Visitas de **INSPECCION DE DEFENSA CIVIL**- 2006.
- ❑ **CERTIFICADO** : Programa Radial de Concientización y Sensibilización "**POR UNA CULTURA AMBIENTAL**" en Radio ALTAMAR 102.3 FM - Abril 2013

X. RESOLUCIONES

- ❑ RESOLUCION JEFATURAL de COOPERADOR de la CBVP 136 BRIGADIER " Juan Peñaloza Salas " Pampa Inalámbrica ILO Enero 2001
- ❑ RESOLUCION JEFATURAL DEPARTAMENTAL MOQUEGUA XXI - CGBVP ILO en Apoyo LOGISTICO - Tnte. Del CUERPO BOMBEROS VOLUNTARIOS DEL PERÚ Cia. Almirante Miguel Grau Seminario N° 76 - ILO Enero 2002
- ❑ RESOLUCION SUB PREFECTURAL en el cargo de TENIENTE GOBERNADOR de la UPIS MIRAMAR - ILO Mayo 2001
- ❑ RESOLUCION C.O. N° 341 - 2009 - UNAM, **NOMBRAMIENTO** en la Institución Pública UNIVERSIDAD NACIONAL DE MOQUEGUA - SEDE ILO, Diciembre 2009.
- ❑ RESOLUCION C.O. N° 373- 2009 - UNAM, designación de la COORDINACION DELA SEDE ILO - UNAM, Diciembre 2009.
- ❑ RESOLUCION PRESIDENCIAL N° 097 - 2009 - UNAM, reconocimiento y felicitación, por el apoyo en la difusión de Charlas Vocacionales, junio 2009.
- ❑ RESOLUCION C.O. N° 168 - 2010 - UNAM, designación en el Cargo de DIRECTOR GENERAL DE ADMINISTRACION Y FINANZAS - UNAM, moquegua Mayo 2010.
- ❑ RESOLUCION DIRECTORAL UGEL - ILO N° 1245: RECONOCIMIENTO y FELICITACION por participar como MIEMBRO DEL JURADO CALIFICADOR de laXX Feria Escolar Nacional de Ciencia Tecnología e Innovación Tecnológica 2010 - II Etapa.
- ❑ RESOLUCION C.O. N° 044 - 2011 - UNAM, designación de RESPONSABLE DE CARRERA PROFESIONAL DE INGENIERIA AMBIENTAL, Febrero 2011.
- ❑ RESOLUCION C.O. N° 062 - 2011 - UNAM, MIEMBRO TITULAR del Comité especial para la ADQUISICION DE BIENES y SERVICIOS y CONTRATACION DE OBRAS para la Implementación del PROYECTO "IMPLEMENTACION PARA ACTIVIDADES DE ENTRENAMIENTO E INVESTIGACION EN EL LITORAL"- Moquegua, Febrero - 2011.
- ❑ RESOLUCION C.O. N° 136 - 2011 - UNAM, ratificación en la designación de RESPONSABLE DE CARRERA PROFESIONAL DE INGENIERIA AMBIENTAL, Abril 2011.
- ❑ RESOLUCION C.O. N° 180 - 2011 - UNAM, aprobación de la conformación del COMITE PERMANENTE DE AUTOEVALUACION y SUB COMISIONES DE TRABAJO - IDAE 2010 -Mayo 2011.
- ❑ RESOLUCION C.O. N° 283 - 2011 - UNAM, MIEMBRO REPRESENTANTE em el SEMINARIO INTERNACIONAL denominado GESTION DEL CONOCIMIENTO - AGRO RED SUR - Moquegua, Julio - 2011.
- ❑ RESOLUCION PRESIDENCIAL N° 231 - 2011 - UNAM, REPRESENTANTE ante la COMISION TECNICA REGIONAL del PROCESO de ZONIFICACION ECOLOGICA, ECONOMICA y ORDENAMIENTO TERRITORIAL de la Región Moquegua, Julio- 2011.

- ❑ RESOLUCION PRESIDENCIAL N° 253 - 2011 - UNAM , REPRESENTANTE ante la COMISION AMBIENTAL REGIONAL - Moquegua, Agosto - 2011.
- ❑ RESOLUCION C.O. N° 385 - 2011 - UNAM, designación como Inspector Técnico de Defensa Civil de la Universidad Nacional de Moquegua em sus3 sedes, Mariscal Nieto, Ichuña e Ilo, Octubre 2011.
- ❑ RESOLUCION PRESIDENCIAL N° 299 - 2011 - UNAM, autorización de viaje de visita oficial como representante de La Universidad Nacional de Moquegua, ante La Universidad Andres Bello de Chile, de Intercambio Institucional, Octubre 2011.
- ❑ RESOLUCION PRESIDENCIAL N° 437 - 2011 - UNAM, reconocimiento y felicitación, por su participación en la Feria de Orientación Vocacional, organizada por la Zona desconcentrada de Trabajo, Diciembre 2011.
- ❑ RESOLUCION DE VICE PRESIDENCIA ACADEMICA N° 028 - 2013 - UNAM, Ratificacion de Docentes Tutores 2013-I, 2013-II; Septiembre 09, 2013 .
- ❑ RESOLUCION DE VICE PRESIDENCIA ACADEMICA N° 040 - 2013 - UNAM, Designacion de Presidente del Comite de Gestion de los laboratórios de fisica, química y biologia; Octubre 28, 2013.
- ❑ RESOLUCION DE ALCALDIA N° 124 - 2011- MDEA, **RECONOCIMIENTO y FELICITACION** por el trabajo realizado en la **PROBLEMÁTICA DEL MEDIO AMBIENTE** del **DISTRITO EL ALGARROBAL** - PROVINCIA DE ILO, REGION MOQUEGUA, Agosto - 2011.
- ❑ RESOLUCION DE ALCALDIA N° 019 - 2013- MDP, **RECONOCIMIENTO y FELICITACION** por su participacion en la formacion de Profesionales en la **PRACTICA DE LINEAMIENTOS Y PRINCIPIOS AMBIENTALES** del **DISTRITO DE PACOCHA** - PROVINCIA DE ILO, REGION MOQUEGUA, Junio 04 - 2013.
- ❑ RESOLUCION EJECUTIVA REGIONAL N° 017- 2012 GR/MOQ. - Cargo de **GERENTE de la SUB REGION ILO**, Enero - Julio 2012.
- ❑ RESOLUCION EJECUTIVA REGIONAL N° 017- 2012 GR/MOQ. - Cargo de **ADMINISTRADOR del DPA ILO**, Febrero 2013.



RODOLFO SANCHEZ VALENCIA
INGENIERO QUIMICO
Reg. del Colegio de Ingenieros N° 38681

NOVIEMBRE, 2013

CURRÍCULUM DE VIDA

❖ DATOS PERSONALES

Apellidos : **PACHECO CENTENO**
Nombres : **MARIBEL ROCIO**
Fecha de Nacimiento : **07 DE JULIO DE 1969**
Nacionalidad : **PERUANA**
Estado Civil : **CASADA**



❖ DOCUMENTO DE IDENTIDAD

DNI. : 29594083
L.M. : 3080180692
RUC. : 10295940838

REGISTRO DEL COLEGIO BIÓLOGOS DEL PERU N° 3568. Certificado de
Habilitación Profesional (16 de Octubre 2009)

❖ DIRECCIÓN DOMICILIARIA

Calle Andrés Avelino Cáceres 413 – 415 Moquegua (Espaldas Terminal Empresa Ormeño)

Celular: 053-953925120

I. GRADOS ACADÉMICOS Y TÍTULOS PROFESIONALES

1.1 GRADO ACADÉMICO:

2008 **MAGISTER** en Docencia Universitaria y Gestión Educativa. Universidad Privada de Tacna (8 de Septiembre del 2008).

1996 Título **BACHILLER** en Ciencia Biológicas. Universidad Nacional de San Agustín de Arequipa

1.2 TÍTULO PROFESIONAL

1997 Título Profesional de **BIÓLOGO** Universidad Nacional de San Agustín de Arequipa.

OTRO TÍTULO O TÍTULO DE SEGUNDA ESPECIALIDAD:

2008 **SEGUNDA ESPECIALIDAD** “Laboratorio de Análisis Biológicos” Universidad Nacional de San Agustín- Arequipa 14 de Marzo del 2008

2005 **SEGUNDA ESPECIALIDAD** “Geografía Recursos Naturales y Gestión Ambiental Universidad Nacional de San Agustín Arequipa.

II. CAPACITACION ACADEMICA

2.1 Estudios Formales Conducentes a grados avanzados sin diploma:

2009 **GRADO ACADEMICO DE DOCTOR:** “*Doctorado en Ciencias: Educación*”. *Cuarto Ciclo*. Universidad Nacional de San Agustín. Constancia Oficial. 27 de Octubre del 2009

2008 **SEGUNDA ESPECIALIDAD “Ingeniería Ambiental”** (Egresado) Universidad José Carlos Mariátegui Moquegua (08 Enero 08).

2.2 DIPLOMADOS:

2009 DIPLOMADO: “Gestión de Recursos Humanos” Abril del 2009.

2009 DIPLOMADO: “Sistemas Integrados de Gestión” Enero 2009.

2006 DIPLOMADO: “Actualización en el Manejo de Primeros Auxilios y Emergencias Medicas” Octubre del 2006.

III. EXPERIENCIA DOCENTE UNIVERSITARIA

3.1 **Categoría Docente Universitario: CONTRATADO** (Profesor)

3.2 **Actividades Lectivas Universitarias**

3.2.1 **Docente**

PRE-GRADO

1. **2009-I Docente Universitario:** Universidad José Carlos Mariátegui. Moquegua a cargo de la cátedra de: En el ciclo II 2009-I Sede Moquegua (Del 01/04/09 al 24/07/09)
MICROBIOLOGIA AMBIENTAL Ingeniería Ambiental
2. **2008-II Docente Universitario:** Universidad José Carlos Mariátegui. Moquegua a cargo de la cátedra de: En el ciclo II 2008-II Sede Moquegua (Del 01/09/08 al 26/12/08)
BIOLOGÍA GENERAL Derecho II-A
BIOLOGIA GENERAL Derecho II-B
3. **2008-I Docente Universitario:** Universidad José Carlos Mariátegui. Moquegua a cargo de la cátedra de:
BIOLOGÍA GENERAL Ingeniería Agroindustrial
en el Ciclo 2008-I Sede Moquegua.(Del 01/04/08 al 25/07/08)

4. **2007-II Docente Universitario:** Universidad José Carlos Mariátegui. Moquegua a cargo de la cátedra de:
BIOLOGÍA GENERAL Derecho II-A
BIOLOGIA GENERAL Derecho II-B
BIOLOGIA GENERAL Ingeniería Ambiental II
en el Ciclo 2007-II Sede Moquegua.(Del 01/09/07 al 28/12/07)
5. **2007-I Docente Universitario:** Universidad José Carlos Mariátegui. Moquegua a cargo de la cátedra de:
BIOLOGÍA CELULAR Enfermería I
BIOLOGIA GENERAL y BUCAL Odontología I
BIOLOGIA GENERAL y BUCAL (Practica) Odontología I
BIOLOGIA CELULAR Obstetricia I
en el Ciclo 2007-I Sede Moquegua.(Del 02/04/07 al 27/07/07)
6. **2006-II Docente Universitario:** Universidad José Carlos Mariátegui. Moquegua a cargo de la cátedra de:
BIOLOGÍA GENERAL Derecho II-A
BIOLOGIA GENERAL Derecho II-B
MICROBIOLOGIA Y PARASITOLOGIA Enfermería III
MICROBIOLOGIA Y PARASITOLOGIA Obstetricia II
MICROBIOLOGIA Y BIOQUIMICA Ing. Agronómica
en el Ciclo 2006-II Sede Moquegua.(Del 28/08/06 al 22/12/06)
7. **2006-I Docente Universitario:** Universidad José Carlos Mariátegui. Moquegua a cargo de la cátedra de:
BIOLOGÍA GENERAL Odontología I
BIOLOGIA GENERAL Derecho - Educación
BIOLOGIA CELULAR Enfermería-Obstetricia I
MICROBIOLOGIA Y PARASITOLOGIA Enfermería III
MICROBIOLOGIA Y PARASITOLOGIA Obstetricia III
en el Ciclo 2006-I Sede Moquegua.(Del 27/03/06 al 21/07/06)
8. **2005-II Docente Universitario:** Universidad José Carlos Mariátegui. Moquegua a cargo de la cátedra de:
BIOLOGÍA GENERAL Derecho -Educación II
BIOLOGIA GENERAL Derecho II-B
BIOLOGIA CELULAR Enfermería I
MICROBIOLOGIA Y PARASITOLOGIA Enfermería III
MICROBIOLOGIA DE LOS ALIMENTOS Ingeniería Agroindustrial V
en el Ciclo 2005-II Sede Moquegua.(Del 29/08/05 al 17/12/05)
9. **2005-I Docente Universitario:** Universidad José Carlos Mariátegui. Moquegua a cargo de la cátedra de:
BIOLOGÍA GENERAL Derecho II
MICROBIOLOGIA Y PARASITOLOGIA Enfermería III
BIOLOGIA CELULAR Enfermería I-A
BIOLOGIA CELULAR Enfermería I-B
en el Ciclo 2005-I Sede Moquegua.(Del 28/03/05 al 23/07/05)

10. **2004-II Docente Universitario:** Universidad José Carlos Mariátegui. Moquegua a cargo de la cátedra de:
MICROBIOLOGIA Y PARASITOLOGIA Enfermería III
BIOLOGIA GENERAL Derecho II-A
BIOLOGIA GENERAL Derecho II-B
BIOLOGIA CELULAR Enfermería I
BOTANICA GENERAL Ingeniería Agroindustrial II
LABORATORIO Facultad de Ciencias de la Salud
en el Ciclo 2004-II Sede Moquegua.(Del 23/08/04 al 17/12/04)
11. **2004-I Docente Universitario:** Universidad José Carlos Mariátegui. Moquegua a cargo de la cátedra de:
BIOLOGIA CELULAR Enfermería I "A"
BIOLOGIA CELULAR Enfermería I "B"
BIOLOGIA GENERAL Derecho-Educación II-I
en el Ciclo 2004-I Sede Moquegua.(Del 29/03/04 al 24/07/04)
12. **2003-II Docente Universitario:** Universidad José Carlos Mariátegui. Moquegua a cargo de la cátedra de:
BIOLOGIA CELULAR Enfermería I
BIOLOGIA GENERAL Derecho II
MICROBIOLOGIA Y PARASITOLOGIA Enfermería III
en el Ciclo 2003-II Sede Moquegua.(Del 18/08/03 al 20/12/03)
13. **2003-I Docente Universitario:** Universidad José Carlos Mariátegui. Moquegua a cargo de la cátedra de:
BIOLOGIA Derecho II
en el Ciclo 2003-I Sede Moquegua.(Del 24/03/03 al 26/07/03)
14. **2002-II Docente Universitario:** Universidad José Carlos Mariátegui. Moquegua a cargo de la cátedra de:
BIOQUIMICA Obstetricia –Ingeniería Ambiental
en el Ciclo 2002-II Sede Moquegua.(Del 02/09/02 al 31/12/02)
15. **2002-I Docente Universitario:** Universidad José Carlos Mariátegui. Moquegua a cargo de la cátedra de:
BIOLOGIA GENERAL Educación - Ingeniería Agroindustrial
En el ciclo 2002-I Sede Moquegua (Del 01/04/01 al 31/07/01)
16. **2001-II Docente Universitario:** Universidad José Carlos Mariátegui. Moquegua a cargo de la cátedra de:
ECOLOGIA Obstetricia
en el Ciclo 2001-II Sede Moquegua.(Del 04/09/01 al 31/12/01)

17. **2001-I Docente Universitario:** Universidad José Carlos Mariátegui. Moquegua a cargo de la cátedra de:
BIOLOGIA GENERAL Obstetricia
MICROBIOLOGIA Y PARASITOLOGIA Obstetricia
en el Ciclo 2001-I Sede Moquegua.
18. **1999-II Docente Universitario:** Universidad José Carlos Mariátegui. Moquegua a cargo de la cátedra de:
ECOLOGIA Obstetricia
en el Ciclo 1999-II Sede Moquegua.(Del 23/08/99 al 18/12/99)

POST-GRADO

2009-I Docente Universitario: Universidad José Carlos Mariátegui. "Maestría en Ciencias de la Educación" en la Mención Docencia Superior e Investigación. I Ciclo-2009 (Oficina de Enlace Mollendo); desarrolladas con el convenio con la Asociación Educativa CIG.
METODOLOGIA DE LA INVESTIGACION 24 horas.

3.3 Bonificación por docencia en la propia Universidad

- ❖ CONSTANCIA DE TRABAJO Universidad Nacional de Moquegua No. 0010-RRHH.
Servicios personales según resolución No. 168-2009 y Memorándum No.021-2009 Docente AUXILIAR TIEMPO PARCIAL. Del 05 de Noviembre del 2008 al 15 de Marzo del 2009
- ❖ CONSTANCIA DE TRABAJO Universidad Nacional de Moquegua. No. 0009-RRHH.
Servicios personales según resolución No. 168-2009 y Memorándum No.021-2009 Docente AUXILIAR TIEMPO PARCIAL. Del 10 de Marzo del 2008 al 04 de Noviembre del 2008
- ❖ RESOLUCION CO No. 012-2008 –UNAM .Art.1Se resuelve contratar a partir del 10 de Marzo a los profesores ganadores del proceso de selección de docentes para la Universidad Nacional de Moquegua. Copia certificada por el Secretario General UNAM

IV. EXPERIENCIA PROFESIONAL NO DOCENTE:

1. **2005 ENCARGADO DEL LABORATORIO DE MICROBIOLOGIA DE AGUAS Y DE ALIMENTOS.** Dirección Ejecutiva de de Salud Ambiental. Ministerio de Salud –Moquegua (desde el 01 de Octubre al 31 de Diciembre del 2005)
2. **2003-2005 Técnico Científico** a Bordo de las Embarcaciones Pesqueras en la Flota de Litoral Peruano a cargo de los muestreos biológicos y biométricos de los recursos pelágicos anchoveta, sardina, jurel y caballa) Proyecto Bitácoras de Pesca Instituto del Mar del Perú durante **2003-2005**

3. **2002-2003 CONSTANCIA SERUMS EQUIVALENTE (Servicio Rural Urbano Marginal** Ministerio de Salud Área de Laboratorio Clínico Centro de Salud San Francisco-Moquegua (Del 01 de Octubre del 2002 al 30 de Septiembre del 2003 acumulando 166 turnos con 996 horas 2003.Resolución Directoral No.070-2005-DRSM/DG
4. **2002 Técnico Científico** a Bordo de las Embarcaciones Pesqueras en la Flota de Litoral Peruano a cargo de los muestreos biológicos y biométricos de los recursos pelágicos anchoveta, sardina, jurel y caballa) Proyecto Bitácoras de Pesca Instituto del Mar del Perú durante 2002.
5. **2001 Técnico Científico** a Bordo de las Embarcaciones Pesqueras en la Flota de Litoral Peruano a cargo de los muestreos biológicos y biométricos de los recursos pelágicos anchoveta, sardina, jurel y caballa) Proyecto Bitácoras de Pesca Instituto del Mar del Perú durante 2001.
6. **2000 Técnico Científico** a Bordo de las Embarcaciones Pesqueras en la Flota de Litoral Peruano a cargo de los muestreos biológicos y biométricos de los recursos pelágicos anchoveta, sardina, jurel y caballa) Proyecto Bitácoras de Pesca Instituto del Mar del Perú durante 2000
7. **1999 Técnico Científico** a Bordo de las Embarcaciones Pesqueras en la Flota de Litoral Peruano a cargo de los muestreos biológicos y biométricos de los recursos pelágicos anchoveta, sardina, jurel y caballa) Proyecto Bitácoras de Pesca Instituto del Mar del Perú durante 1999.
8. **1998 Técnico Científico** a Bordo de las Embarcaciones Pesqueras de la Flota del Litoral Peruano: a cargo de muestreos biológicos y biométricos de los recursos pelágicos (anchoveta, sardina, jurel y caballa) Proyecto Bitácoras de pesca. Instituto del Mar del Perú durante 1998
9. **1996-1997 Técnico Científico** a Bordo de las Embarcaciones Pesqueras de la Flota Industrial .Puerto del CALLAO: a cargo de muestreos biológicos y biométricos de los recursos pelágicos (anchoveta, sardina, jurel y caballa)y procesamiento de información Biológico-Pesquera Proyecto Bitácoras de Pesca. Instituto del Mar del Perú (desde el 06 de Noviembre de 1996 al 13 de Enero de 1997)
10. **1996 Empadronador II Etapa del censo de Embarcaciones Pesqueras** (verificación física de las embarcaciones. Puerto del Callao. Lima (desde el 01 al 06 de Setiembre de 1996)

V. RESPONSABILIDADES UNIVERSITARIAS

5.1 No registra

5.2 Jefe de Oficina Central Universitaria:

❖ RESOLUCION C.O. No.1210-UNAM 04 de Febrero del 2009
JEFE DE OFICINA DE ACREDITACION UNIVERSITARIA

❖ RESOLUCION C.O. No.110-UNAM 26 de Setiembre del 2008
JEFE DE OFICINA DE ACREDITACION UNIVERSITARIA

❖ RESOLUCION C.O. No.026-UNAM 08 de Mayo del 2008
JEFE DE OFICINA DE PERSONAL

VI. PRODUCCION INTELECTUAL E INVESTIGACION

6.1 Publicaciones Docentes:

- ❖ **DESARROLLO HUMANO I.** Mg. Maribel Rocío Pacheco Centeno y Lic. Margarita Amparo Flores Chipana. Deposito de Ley Biblioteca Municipal No 2009-13810
- ❖ **DESARROLLO HUMANO II.** Mg. Maribel Rocío Pacheco Centeno y Lic. Margarita Amparo Flores Chipana. Deposito de Ley Biblioteca Municipal No 2009-13810
- ❖ **GEOSISTEMAS Y DEFENSA NACIONAL.** Mg. Maribel Rocío Pacheco Centeno y Lic. Margarita Amparo Flores Chipana. Deposito de Ley Biblioteca Municipal No. 2009-13811

SEPARATAS:

- **SEPARATA: “LA BIOLOGIA FORENSE Y SU IMPORTANCIA EN EL CONTEXTO JURIDICO”.** Universidad José Carlos Mariátegui. Facultad de Ciencias Jurídicas Pedagógicas y Empresariales .Carrera Profesional de Derecho. Curso de Biología Forense 2009-II Sede Moquegua
- **SEPARATA: “LA ESCENA DEL CRIMEN”** Universidad José Carlos Mariátegui. Facultad de Ciencias Jurídicas Pedagógicas y Empresariales .Carrera Profesional de Derecho. Curso de Biología Forense 2009-II Sede Moquegua
- **SEPARATA: “CRIMINALISTICA”** Universidad José Carlos Mariátegui. Facultad de Ciencias Jurídicas Pedagógicas y Empresariales .Carrera Profesional de Derecho. Curso de Biología Forense 2009-II Sede Moquegua
- **SEPARATA: “CONTAMINACION AMBIENTAL”** Universidad Nacional de Moquegua. Carrera Profesional de Ingeniería Agroindustrial. Curso de Ecología 2008-II Sede Moquegua
- **SEPARATA: “BIORREMEDIACION”** Universidad Nacional de Moquegua. Carrera Profesional de Ingeniería Agroindustrial. Curso de Ecología 2008-II Sede Moquegua
- **SEPARATA: “GESTION AMBIENTAL”** Universidad Nacional de Moquegua. Carrera Profesional de Ingeniería Agroindustrial. Curso de Ecología 2008-II Sede Moquegua
- **MANUAL UNIVERSITARIO “HIDROPONIA”** .Facultad de Ingenierías. Resolución de Consejo de Facultad No.021-2008” 41 Paginas.
- **MANUAL UNIVERSITARIO “BIOLOGIA”** .Facultad de Ingenierías. Resolución de Consejo de Facultad No.0146-2007” 132 Paginas.

6.2 Investigación Científica:

Artículos:

- 1.- Revista de Derecho GRUPO CROMEO Año 1 / Numero 1 Set del 2009 “La Biología Forense y su importancia en el contexto Jurídico”**
- 2.- Revista de Investigación DILLONIANA Universidad Nacional de San Agustín Arequipa Octubre 2001,1(1) “Variabilidad de los caracteres morfométricos de la Anchoqueta en las zonas de Callao e Ilo 1997.”**

VII. PARTICIPACION EN CERTAMENES Y CONGRESOS A NIVEL UNIVERSITARIO.

7.1 PONENTE AUTOR O COACTOR

- **PONENTE:** “I Congreso Internacional, I Congreso Nacional del Derecho Penal. Procesal Penal Criminología y Ciencias Forenses. Colegio de Abogados de Arequipa los días 24, 25 y 26 de Setiembre del 2009.
- **PONENTE:** “Curso Importancia de la Investigación en la Escena del Crimen y sus implicancias en el Nuevo Código Procesal Penal” Universidad Nacional de Moquegua. 22 de Setiembre del 2008. Moquegua
- **PONENTE:** “Curso Importancia de la Biología Forense en el contexto Jurídico” Universidad José Carlos Mariátegui .14 de Diciembre del 2007. Moquegua
- **PONENTE:** “Seminario: Primeros Auxilios y Bioseguridad en Laboratorio”. Centro de Formación y Capacitación Médica. Médicos Voluntarios por la Vida Mundial Auditorio de la Municipalidad de Moquegua. (del 19 al 21 de Enero del 2007.) (52 horas. 3 créditos)
- **PONENTE:** “Seminario: Emergencias Traumatológicas y Abdominales” Instituto de Capacitación Médica. Centro de Formación y Capacitación Médica. Los días 14, 15 y 16 de Agosto del 2009
- **PONENTE:** “Seminario: Bioseguridad Hospitalaria” Instituto de Capacitación Médica. Centro de Formación y Capacitación Médica. Los días 21, 22 y 23 de Agosto del 2009.

7.2 ORGANIZADOR

- **ORGANIZADOR:** “Curso Importancia de la Investigación en la Escena del Crimen y sus implicancias en el Nuevo Código Procesal” Penal Universidad Nacional de Moquegua. 22 de Setiembre del 2008. Moquegua
- **ORGANIZADOR:** “Seminario Unidad de Cuidados Intensivos y Manejo de las Infecciones Intrahospitalarias”. Instituto de Capacitación Médica. Los días 8, 9, 10 de Mayo del 2009. Arequipa
- **ORGANIZADOR:** “Seminario Infecciones Intrahospitalarias en las Unidades de Cuidados Intensivos”. Instituto de Capacitación Médica 17, 18 y 19 de Abril del 2009. Lima

- 12
- **ORGANIZADOR:**“Curso Administración y Gerencia en Ciencias de la Salud” Universidad José Carlos Mariátegui.11 de Julio del 2006.Moquegua
 - **ORGANIZADOR:**“Curso Capacitación en Criminalística” Universidad José Carlos Mariátegui. Julio y Agosto del 2005.Moquegua

7.3 ASISTENTE

1. Seminario Taller “Fortalecimiento de la Calidad de Atención en Salud” Auspiciado por la Universidad Nacional de San Agustín de Arequipa los días 17 y 18 de Octubre del 2009.Con una duración de 40 horas académicas equivalente a 2 créditos.
2. Curso de Especialización Profesional: “Docencia en la Educación Superior Policial” Universidad Nacional Daniel Alcides Carrión” Instituto de Investigación y Especialización Profesional realizado en Arequipa 06 meses 480 horas.18 de Abril del 2009
3. Curso de Especialización Profesional: “Ingeniería Forense” Universidad Nacional Daniel Alcides Carrión” Instituto de Investigación y Especialización Profesional realizado en Arequipa 06 meses 480 horas.15 de Enero del 2009
4. Curso de Especialización Profesional: “Formación de Peritos Judiciales en Grafotecnia”. Universidad Nacional del Santa. Chimbote realizado a nivel nacional con sede en Moquegua realizado en la ciudad de Moquegua desde el 26 de Abril al 30 de Agosto del 2008 el mismo que tuvo una duración de 512 horas
5. Curso de Especialización Profesional: “Medicina Legal y Ciencias Forenses”. Universidad San Martín de Porres. Cuerpo Médico del Hospital Edgardo Rebagliatti Martiss realizado del 22 de Diciembre del 2007 al 22 de Julio del 2008 (07 meses) 630 horas)
6. Curso de Especialización Profesional: “Legislación y Evaluación del Impacto Ambiental”. Universidad Agraria La Molina. Facultad de Ingeniería Agrícola realizado en la ciudad de Arequipa del 20 de Enero al 14 de Julio del 2007.(480 horas .30 créditos)
7. DIPLOMADO “Criminalística”. Universidad Nacional de Cajamarca. Facultad de Derecho y Ciencias Políticas realizado desde el 04 de Noviembre del 2006 al 06 de Junio del 2007.(480 horas)
8. Curso “Sílabo por Competencias” Universidad José Carlos Mariátegui. realizado en la ciudad de Moquegua 04 de Mayo (16 horas.1 crédito)
9. Curso Taller “Vigilancia y Control del Medio Ambiente” Ministerio de Salud. Moquegua del 27 al 29 del 2005(20 horas)

10. Curso de Estimulación Temprana en el Niño de 3 años” Universidad José Carlos Mariátegui realizado en la ciudad de Moquegua del 22 al 23 de Abril del 2006.(16 horas.1 crédito)
11. Curso de Especialización “Gestión de la Salud Ambiental”. Universidad Ricardo Palma. Lima realizado en la ciudad de Tacna del 30 de Octubre al 25 de Junio del 2005. 640 horas.24 créditos
12. Curso de Capacitación en Criminalística “Investigación en la Escena del Delito” Universidad José Carlos Mariategui-Instituto Peruano de Ciencias Forenses-Arequipa. realizado en la ciudad de Moquegua los meses de Julio y Agosto del 2005 (240 horas .10 créditos)

VIII. AFILIACION A INSTITUCIONES ACADEMICAS Y CIENTIFICAS

- 8.1 No registra
- 8.2 No registra
- 8.3 No registra

IX. DISTINCIONES Y HONORES

No registra

X. CONOCIMIENTOS DE IDIOMAS ADICIONALES A LA LENGUA MATERNA

IDIOMAS:

- ❖ **INGLES.** Universidad Privada de Tacna .Escuela de Post- Grado. Resolución Directoral No. 307-2004-esp/UPT. Habiendo aprobado el Nivel Básico e Intermedio del idioma **INGLES**
- ❖ **PORTUGUEZ BASICO** Universidad Nacional de San Agustín de Arequipa. Facultad de Filosofía y Humanidades Departamento Académico de Literatura y Lingüística Habiendo aprobado el Nivel Básico del idioma

Moquegua, 04 de Noviembre del 2009



Mag. Maribel Pacheco Centeno
BIOLOGA
CBP No. 3568

HOJA DE VIDA



DATOS PERSONALES

- Apellidos y Nombre : ESCOBEDO PACHECO, ELÍAS
- DNI : 29703472
- Libreta Militar : 3103037739
- Registro CIP : 68772
- Celular : 956010856
- E-mail : eliaseep@hotmail.com

1. GRADOS ACADÉMICOS Y TÍTULOS PROFESIONALES

1.1. Título Profesional: **INGENIERO QUÍMICO**

Otorgado por la Universidad Nacional de San Agustín de Arequipa, Enero, 2002.

1.2. Grado académico:

1.2.1. Maestro: **MAGÍSTER EN CIENCIA Y TECNOLOGÍA DE ALIMENTOS**

Otorgado por la Universidad Nacional de San Agustín de Arequipa, Diciembre, 2009.

1.2.2. Bachiller: **BACHILLER EN INGENIERÍA QUÍMICA**

Otorgado por la Universidad Nacional de San Agustín de Arequipa, Agosto, 1997.

1.2.3. Otro Título Profesional:

TÍTULO DE SEGUNDA ESPECIALIDAD EN CONTAMINACIÓN Y GESTIÓN AMBIENTAL

Otorgado por la Universidad Nacional de San Agustín de Arequipa, Mayo, 2010.

2. ACTUALIZACIONES Y CAPACITACIONES

2.1. ESTUDIOS DE POSTGRADO

2.1.1. Estudios concluidos, 4 semestres, en el "DOCTORADO EN INGENIERÍA DE PROCESOS" en la Universidad Nacional San Agustín de Arequipa.

2.1.2. Estudios concluidos, 2 semestres, en el Programa de Segunda Especialización Profesional en "FORMULACIÓN Y EVALUACIÓN DE PROYECTOS DE INVERSIÓN" en la Universidad Nacional del Altiplano de Puno.

2.2. DIPLOMADO

2.2.1. Diplomado en: "DEFENSA NACIONAL Y RELACIONES INTERNACIONALES", Otorgado por la Escuela de Post Grado de la Universidad José Carlos Mariátegui de Moquegua.

3. TRABAJOS DE INVESTIGACIÓN

3.1. TRABAJOS DE INVESTIGACIÓN CIENTÍFICA Y/O TECNOLÓGICA

- Tesis de Investigación: "Cinética de la hidrólisis enzimática del almidón en un reactor de lecho empacado con alfa amilasa inmovilizada", UNSA – Arequipa.



- Tesis de Investigación: "*Biosorción y bioacumulación de metales tóxicos*", UNSA – Arequipa.

3.2. PUBLICACIONES EN REVISTAS CIENTÍFICAS, TECNOLÓGICAS O CULTURALES

- Publicación del artículo: "*Cinética de la hidrólisis del almidón en un reactor de lecho empacado con alfa-amilasa inmovilizada*", en la Revista Anual N° XIII, Julio 2011 de la FIQ – UNA – Puno
- Publicación del artículo: "*Evaluación de la acidez titulable, capacidad amortiguadora y determinación del pH en jugo de naranja natural y comercial*", en la Revista Anual N° XII, Febrero 2009 de la FIQ – UNA – Puno
- Publicación del artículo: "*Evaluación Sensorial de los Alimentos: Análisis Organoléptico y Análisis Estadístico*", en la Revista anual N° 11, Agosto 2006 de la FIQ – UNA – Puno.
- Publicación del artículo: "*Investigación de los Parámetros Óptimos para el Tratamiento Térmico en la Elaboración de Conservas de Medallones de Pejerrey en Salsa de Tomate*", en la Revista anual N° 10, Noviembre 2004 de la FIQ – UNA – Puno.

4. CARGOS DIRECTIVOS O APOYO ADMINISTRATIVO

4.1. CARGOS DIRECTIVOS

- 4.1.1. Responsable de la Carrera Profesional de Ingeniería Agroindustrial de la Universidad Nacional de Moquegua, a partir del 04 de Enero del 2013, designado mediante Resolución C.O. N° 002-2013-UNAM hasta el 04 de Mayo del 2014, según consta en la Resolución C.O. N° 0234-2014-UNAM. (1 año y 3 meses)
- 4.1.2. Responsable del Laboratorio de Química de la Sede Mariscal Nieto de la Universidad Nacional de Moquegua, a partir del 18 de junio del 2012, designado mediante Resolución C.O. N° 218-2012-UNAM.
- 4.1.3. Jefe de la Oficina de Logística y Servicios de la Universidad Nacional de Moquegua, a partir de junio del 2011, designado mediante Resolución C.O. N° 224-2011-UNAM, hasta junio del 2012, según consta en la Resolución C.O. N° 218-2012-UNAM (1 año)
- 4.1.4. Jefe de la Oficina de Recursos Humanos de la Universidad Nacional de Moquegua, Mayo del 2014 hasta la fecha del presente, designado mediante Resolución C.O. N° 0233-2014-UNAM.

5. DE MATERIALES DE ENSEÑANZA

5.1. TEXTOS UNIVERSITARIOS CON DEPÓSITO LEGAL

- Libro: "*Química Orgánica Básica*", con Depósito Legal N° 2010-16446 en la Biblioteca Nacional del Perú.
- Libro: "*Productos Naturales: Composición, estructura y métodos de extracción e identificación*", con Depósito Legal N° 2010-16449 en la Biblioteca Nacional del Perú.
- Libro: "*Química*", con Depósito Legal N° 2010-16450 en la Biblioteca Nacional del Perú.

5.2. COMPENDIOS DE NIVEL UNIVERSITARIO

5.2.1. "Tecnología de Alimentos I", presentado el 11 de octubre del 2013 a la Carrera Profesional de Ingeniería Agroindustrial.

5.3. MANUAL O SEPARATAS DE CLASES TEÓRICAS O PRÁCTICAS DE CURSOS COMPLETOS

5.3.1. "Guía de Prácticas de Laboratorio de Operaciones Unitarias I", presentado el 11 de octubre del 2013 a la Carrera Profesional de Ingeniería Agroindustrial.

5.3.2. Apuntes de clase: "Análisis instrumental en alimentos", presentado el 11 de octubre del 2013 a la Carrera Profesional de Ingeniería Agroindustrial.

5.3.3. "Guía de Prácticas de Laboratorio de Química", presentado el 11 de octubre del 2013 a la Carrera Profesional de Ingeniería Agroindustrial.

5.3.4. "Problemas resueltos de química general", presentado el 11 de octubre del 2013 a la Carrera Profesional de Ingeniería Agroindustrial.

6. CONOCIMIENTO DE IDIOMAS

6.1. Nivel Intermedio: Idioma Portugués

6.2. Nivel Intermedio: Idioma Inglés

7. ASESORÍA A ALUMNOS

7.1. ASESOR DE TESIS PARA OBTENCIÓN DE TÍTULO PROFESIONAL

- Asesor de Tesis de Investigación: "Instalación del autoclave vertical digital y evaluación en el tratamiento térmico de conservas de alimentos" según Acta de sustentación con Folio N° 000122 de la FIQ – UNA – Puno.
- Asesor de Tesis de Investigación: "Obtención de harina de *Ilaska (cladophora crispata)* y evaluación de sus propiedades funcionales" según Acta de sustentación con Folio N° 000126 de la FIQ – UNA – Puno.

7.2. TUTORÍA O CONSEJERÍA ACREDITADA

- Resolución de Vicepresidencia Académica N° 029-2014-UNAM en la que se resuelve expresar Reconocimiento y Felicitación por desempeño de labores de tutoría en la Carrera Profesional de Ingeniería Agroindustrial, durante el Semestre Académico 2013-I y 2013-II, con un número de 33 estudiantes.
- Resolución de Vicepresidencia Académica N° 032-2013-UNAM en la que se resuelve ratificar la designación de los docentes tutores y sus respectivos tutorandos de la Carrera Profesional de Ingeniería Agroindustrial.

8. ACTIVIDADES DE PROYECCIÓN SOCIAL

8.1. ORGANIZACIÓN O PARTICIPACIÓN EN ACTIVIDADES ACADÉMICAS, ARTÍSTICAS O CULTURALES

8.1.1. Organización de cursos

- Curso de Diseño de Plantas Industriales asistido por computadora – CAD – AutoCAD Plant 3D, UNAM, Octubre, 2013.
- Curso Teórico – Práctico: "Espectroscopia de Absorción Atómica A.A. para Análisis de Minerales de Oro y Plata", UNA – Puno, Marzo, 2011.
- Curso taller: "Análisis por espectroscopia infrarrojo, aplicando transformadas de Fourier", UNA – Puno, Setiembre, 2009.

8.1.2. Organización de simposios

- Simposio "Metodologías Aplicadas en la Investigación Científica en Ingeniería", realizado en la Universidad Nacional de Moquegua, Junio, 2011.
- En el Fórum: "El día mundial del ambiente", UANCV – Juliaca, Junio, 2010.

8.1.3. Organización de seminarios

- Seminario "Innovación Tecnológica y su Impacto en el Desarrollo Regional", UNAM – Moquegua, Octubre, 2013.
- Seminario Internacional Modelos Matemáticos Aplicados a la Agroindustria", UNAM – Moquegua, Marzo, 2013.
- Seminario "Realidad de la Universidad Peruana y el Sector Agroindustrial", UNAM – Moquegua, Febrero, 2013.
- Seminario Nacional: "Uso de biodigestores para la generación de Energías Limpias", UNAM – Moquegua, Noviembre, 2012.
- Seminario Taller: "Proceso de autoevaluación de las carreras profesionales de ingeniería – rumbo a la acreditación", UNA – Puno, Mayo, 2010.

8.2. PARTICIPACION COMO PONENTE

- 8.2.1. En el Curso Taller "Capacitación en el Área de Ciencia Ambiente", realizado en los Laboratorios de la Universidad Nacional de Moquegua, Noviembre, 2013
- 8.2.2. En el Simposio "Metodologías Aplicadas en la Investigación Científica en Ingeniería", realizado en la Universidad Nacional de Moquegua, Junio, 2011.
- 8.2.3. En el "II Congreso Nacional de Fenómenos de Transferencia", desarrollado en la Universidad Nacional de San Antonio Abad del Cusco, Noviembre, 2010.
- 8.2.4. En el Curso Taller Teórico Práctico "Absorción Atómica con Soluciones Patrón" desarrollado en la Facultad de Ingeniería Química de la UNA – Puno, Julio, 2010.
- 8.2.5. En el Fórum "El día mundial del medio ambiente" desarrollado en la Facultad de Ingenierías y Ciencias Puras de la UANCV – Juliaca, Junio, 2010.



8.3. PARTICIPACIÓN COMO ASISTENTE

- 8.3.1. En el "Congreso Internacional de Tecnología Ambiental: Calidad del Agua Potable, Tratamiento de Residuos Líquidos-Sólidos y Biogas", Abril 2014.
- 8.3.2. En el "5 Congreso Interamericano de Residuos Sólidos", realizado por AIDIS en Lima, Mayo, 2013.
- 8.3.3. En el Seminario Internacional "Implementación de los Sistemas Integrados de Gestión, realizado por QMS Perú en Lima, Mayo, 2013.
- 8.3.4. En el Seminario: "Desarrollo y Perspectivas del Gas Natural y Precios de Combustibles en el Perú", realizado por OSINERGMIN Moquegua, Abril, 2013.
- 8.3.5. En el "IX Congreso Nacional del Pisco" realizado en Moquegua, Noviembre, 2012.
- 8.3.6. En el "III Congreso Nacional de Fenómenos de Transferencia", realizado en la Universidad Nacional del Callao, Octubre, 2012.
- 8.3.7. En el curso: "Tecnología Oleo química: Aceites, grasas y biodiesel", realizado en la Universidad Nacional del Callao, Octubre, 2012.
- 8.3.8. En el "XXVI Congreso Peruano de Química", realizado en la Universidad Nacional de San Agustín de Arequipa, Octubre, 2012.
- 8.3.9. En el curso en Educación Química: "Instrumentación Química Alternativa", realizado en la Universidad Nacional de San Agustín de Arequipa, Octubre, 2012.
- 8.3.10. En el Taller de Capacitación: "Evaluación y Rediseño Curricular", realizado en la Universidad Nacional de Moquegua, Agosto, 2012.
- 8.3.11. En los "Cursos de Gestión Administrativa – I Etapa", realizado en la Universidad Nacional de Moquegua, Mayo, 2012.
- 8.3.12. En el Curso Taller: "Formulación de Proyectos de Inversión Pública bajo la metodología del SNIP – Sector Universidades", realizado en la Universidad Nacional de Ingeniería, Abril, 2012.
- 8.3.13. En el Curso/Seminario: "Sistema Electrónico de Contrataciones del Estado-SEACE", Tacna, Febrero, 2012.
- 8.3.14. En el Seminario Taller: "Edición y Publicación Científica", realizado en la Universidad Nacional Jorge Basadre Grohmann de Tacna, Octubre, 2011.
- 8.3.15. En el Seminario Taller "Aplicación de la Normativa de Contrataciones", OSCE - Lima, Octubre, 2011.
- 8.3.16. En el Seminario Taller "Factores de Evaluación y Calificación de Propuestas de Bienes y Servicios", OSCE, Arequipa, 2011.
- 8.3.17. En el "Taller de Formulación y Ejecución de Proyectos de Investigación con Canon Minero", realizado en la Universidad Nacional de Moquegua, Setiembre, 2011.
- 8.3.18. En el "Curso Taller de Capacitación 2011 – Lima", realizado en la UNI, UNMSM y UNAC, Agosto, 2011.
- 8.3.19. En el curso: "Fluidos supercríticos como medio para reacciones, separaciones y procesamiento", Universidad Nacional de San Antonio Abad del Cusco, Noviembre, 2010.

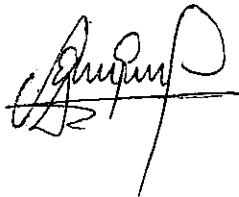


8.4. RECONOCIMIENTO Y FELICITACIÓN POR PARTE DE INSTITUCIONES BENEFICIADAS

- 8.4.1. Agradecimiento por su buen desempeño laboral y meritoria contribución, como Responsable de la Carrera Profesional de Ingeniería Agroindustrial de la Universidad Nacional de Moquegua, desde el 04 de enero de 2013 al 05 de mayo de 2014, según Resolución C.O. N° 0234-2014-UNAM de fecha 06 de mayo del 2014.
- 8.4.2. Agradecimiento por su buen desempeño y meritoria contribución como Coordinador de Beca 18 y así como su disposición a seguir colaborando con el fortalecimiento institucional, según Resolución C.O. N° 145-2014-UNAM de fecha 24 de marzo del 2014.
- 8.4.3. Reconocimiento y Felicitación por los logros alcanzados en el Proyecto "Implementación con Equipos de Ingeniería del Gabinete de Topografía de la Escuela Profesional de Ingeniería de Minas de la Universidad Nacional de Moquegua", según Resolución Presidencial N° 401-2012-UNAM de fecha 28 de noviembre del 2012.
- 8.4.4. Felicitación y Agradecimiento por la labor prestada como Jefe de la Oficina de Logística y Servicios de la UNAM, según Resolución C.O. N° 218-2012-UNAM de fecha 11 de junio del 2012.

8.5. REPRESENTACIÓN OFICIAL DE LA UNIVERSIDAD ANTE ENTIDADES PÚBLICAS O PRIVADAS

- 8.5.1. Presentación ante el Colegio Nacional Simón Bolívar, según Oficio N° 0372-2013-P-UNAM de fecha 09 de octubre del 2013.
- 8.5.2. Acreditación ante el Comité Ejecutivo Regional de Exportación – CERX, según Oficio N° 045-2013-P-UNAM de fecha 05 de febrero del 2013.

A handwritten signature in black ink, appearing to be 'Augusto', written over a horizontal line.



Translated by Luis De Los Santos Valladares (This is not an official translation)

**Memorando de Entendimiento / Memorandum de Acuerdo
fecha 9 de Noviembre del 2015**

Entre:

El Canciller, Maestros y Académicos de la Universidad de Cambridge, The Old Schools, Trinity Lane, Cambridge, CB2 1TN, Reino Unido ("Cambridge")

y

El presidente de la Comisión Organizadora de la Universidad Nacional de Moquegua (UNAM), Prolongación calle Ancash s.n. Moquegua, Perú

PROPÓSITO

1. El propósito de este Memorando de Entendimiento / Memorandum de Acuerdo es para manifestar formalmente el mutuo interés de la Universidad de Cambridge y UNAM en la promoción y fomento de los vínculos académicos entre ambas instituciones por un período de **cuatro** años a partir de la firma del presente Memorando de Entendimiento / Memorandum de Acuerdo.

Discusiones preliminares

2.

1. Las partes han discutido una serie de posibilidades para la colaboración. Tras un debate en Cambridge nos gustaría proponer a la UNAM la creación de un grupo de investigación conformado por investigadores de ambas Universidades y localizada en la UNAM. El trabajo principal de este grupo de investigación será la de investigar el impacto de las actividades mineras en la hidrología y la calidad del agua en la región Moquegua, Perú. Las tareas del grupo serán: llevar a cabo proyectos de investigación que permitan obtener datos útiles, publicaciones, charlas en conferencias, y tener un buen conocimiento del impacto de minería en la región; además de entrenar estudiantes de doctorado, estudiantes de maestría en las técnicas de análisis pertinentes; y organizar y facilitar el intercambio bilateral de personal académico e investigadores entre Cambridge y la

UNAM. El objetivo a largo plazo será la de establecer un Centro de Excelencia en la UNAM para el estudio del impacto de la Minería y apoyo del personal entrenado.

2. Como un proyecto de investigación inicial para este grupo, se propone un estudio de cuatro años para adaptar una tecnología de etiquetado avanzado [1] para rastrear el movimiento del agua en la región Moquegua y cuantificar la difusión separada de los residuos solubles dentro de los cursos de agua y el medio ambiente en general. Un tema fundamental de la investigación será entender el movimiento del agua regional y posibles consecuencias agroecológicas para el desarrollo en la región y que emplea un enfoque interdisciplinario que utiliza ambos estudios hidrológicos y agroecológicas.

[[1] *A composite element bit design for magnetically encoded microcarriers for future combinatorial chemistry applications*. David M. Love, Kunal N. Vyas, Amalio Fernández-Pacheco, Justin Llandro, Justin J Palfreyman, Thanos Murelias, Crispin H.W. Barnes, *RSC Advances* 5 14 10211-10218 (2015).

3. La creación del grupo y seguimiento del proyecto está sujeta a la negociación de los términos contractuales adecuadas y los fondos necesarios que estén disponibles.

PASOS FUTUROS

3. Si las posibilidades de colaboración parecen ser factibles luego de continuos debates entre las partes y las fuentes de financiación adecuadas son identificados, se propone que las negociaciones deben llevarse a cabo con miras a finalizar los términos de dichos acuerdos contractuales entre dichas partes que sean necesarias y adecuados para poner la propuesta en marcha.

CUENTAS PÚBLICAS

4. Las partes reconocen los méritos de publicidad positiva pero se comprometen a que ninguna de las partes debe hacer ningún anuncio de prensa o declaración pública sobre las propuestas o este Memorandum de Entendimiento / Memorandum de Acuerdo que no se haya acordado previamente por la otra parte.

PROTECCIÓN DE MARCA

5. Ninguna de las partes utilizará el nombre, nombre comercial, marca comercial, logotipo u otra designación de la otra parte en relación con cualquier producto, promoción, publicidad, prensa o publicidad sin el permiso previo por escrito de la otra parte.

EFFECTO DE ESTE MEMORANDO

6. Las partes expresan en el presente Memorando de Entendimiento / Memorandum de Acuerdo su apoyo y entusiasmo por las propuestas, sin embargo el presente

Memorandum no tiene la intención de crear una relación legal entre las partes. Las partes reconocen que cualquier acuerdo o acuerdos que afecten a una de las partes pueden ser posteriormente negociados a voluntad, antes de la ejecución, requieren la aprobación expresa de los organismos específicos y funcionarios debidamente autorizados en la Universidad de Cambridge y la UNAM y reconocen que en cualquier momento antes de dicho cumplimiento las partes y cada una de ellas tendrán libertad para proponer arreglos diferentes a los descritos en el presente Memorando o unilateralmente cesar cualquier consideración o negociación contemplada en este Memorando, sin responsabilidad alguna de la otra parte.

Firmado por y en nombre de la Universidad de Cambridge por el profesor MA Parker, jefe del Departamento, Laboratorio Cavendish.

M.A. Parker

17/11/15

Firmado por y en nombre de la Universidad Nacional de Moquegua por el Dr. Oswaldo León Ramos Chumpitaz, Presidente de la Comisión Organizadora

Oswaldo

27/11/15

Dated: Cambridge, May 4th, 2016

(1) **THE CHANCELLOR, MASTERS AND SCHOLARS
OF THE UNIVERSITY OF CAMBRIDGE**

(2) **UNIVERSIDAD NACIONAL DE MOQUEGUA**

**UNIVERSITY OF CAMBRIDGE
RESEARCH COLLABORATION AGREEMENT**



pl

THIS AGREEMENT dated Cambridge, May 4th, 2016, is made **BETWEEN:**

- (1) **The Chancellor, Masters and Scholars of the University of Cambridge** of The Old Schools, Trinity Lane, Cambridge CB2 1TN ("University"); and
- (2) **Presidente de la Comisión Organizadora de la Universidad Nacional de Moquegua**, Prolongación calle Ancash s/n, Moquegua, Perú ("the Sponsor")

BACKGROUND

- A) The University and the Sponsor wish to work together for mutual benefit on the research project described below.
- B) The University is a charity strongly committed to publication and commercialisation of its research. Research findings are published, subject to the removal of Sponsor Confidential Information and the filing of registerable rights where appropriate.
- C) The University is willing to grant the Sponsor early access to unpublished Results and an option to take an exclusive licence of any Intellectual Property in those Results.
- D) Until Published, Results are University Confidential Information.

1. DEFINITIONS

In this Agreement the following expressions have the meaning set opposite:

- | | |
|----------------------------------|---|
| Agreement: | this document, including its Schedules, as amended from time to time in accordance with clause 10.4; |
| Background: | information, techniques, data, results, design, technology, materials, inventions and software (regardless of the form or medium in which they are disclosed or stored) and any Intellectual Property whenever provided by one party to the other for use in the Project[, as specified in Schedule 2,] and limited in the case of the University to Background of any Key Personnel; for the avoidance of doubt Background is distinct from and is not part of any Result; |
| Business Day: | Monday to Friday (inclusive) except bank or public holidays; |
| Confidential Information: | Any Background identified as confidential; Results are University Confidential Information until publication by the University; |
| Effective Date: | 1 st June 2016; |
| End Date: | 31 st May 2017 or until any later date agreed in writing between the parties; |
| Financial Contribution: | the financial contribution to be provided by the Sponsor set out in Schedule 1; |



PC

Indemnified Parties: the University and its Key Personnel, staff and students;

Intellectual Property: patents, trademarks, service marks, registered designs, copyrights, database rights, design rights, applications for any of the above, and any similar right recognised from time to time in any jurisdiction, together with all rights of action in relation to the infringement of any of the above;

Key Personnel: the Principal Investigator and any other key personnel for either party identified in Schedule 2;

Negotiation Period: 90 days beginning on the date of the Option Notice served by the Sponsor;

Option Notice: a written option notice served by the Sponsor on the University during the Option Period;

Option Period: for each Result is 3 months beginning on the date of the report notifying the Result;

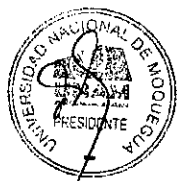
Principal Investigator: Prof. Crispin H. W. Barnes or his successor appointed under clause 9.2;

Project: the programme of work described in Schedule 2, as amended from time to time in accordance with clause 10.4;

Project Period: the period described in clause 2.1;

Results: all information, techniques, data, results, design, technology, materials, inventions and software identified or first reduced to practice or writing in the course of undertaking the Project;

University's Nominee: the University's wholly owned technology transfer company which at the Effective Date is Cambridge Enterprise Limited.



PC

2. **THE PROJECT**

- 2.1 This Agreement takes effect on the Effective Date and will continue until the End Date unless terminated earlier in accordance with clause 8 or 9.
- 2.2 The University will perform its respective tasks in Schedule 2. The Project will be carried out under the direction of the Principal Investigator.
- 2.3 Each party will use all reasonable endeavours to obtain all necessary regulatory and ethical licences, consents and approvals required in relation to its tasks.

- 2.4 Each party will ensure that its employees and students (if any) observe the conditions attached to any regulatory and ethical licences, consents and approvals.
- 2.5 The University does not undertake that any research will lead to any particular result, nor guarantee a successful outcome to the Project.
- 2.6 The University will provide the Sponsor with quarterly Project reports and a copy of all Results which shall be supported by Project work records.
- 2.7 Each party warrants to the other that it has full power and authority under its constitution, and has taken all necessary actions and obtained all necessary authorisations, licences, and consents to perform this Agreement.

3. FINANCIAL CONTRIBUTION

- 3.1 The Sponsor will pay the Financial Contribution to the University in accordance with Schedule 1 (and any further sums due under clause 9.5) within 30 days beginning on the Sponsor's receipt of University invoices.
- 3.2 All amounts payable to the University under this Agreement are exclusive of VAT (or any similar tax) which the Sponsor will pay at the rate from time to time prescribed by law.
- 3.3 If the Sponsor fails to make any payment due to the University under this Agreement, without prejudice to any other right or remedy available to the University, the University may do either or both of the following:

- 3.3.1 suspend performance and charge the Sponsor for all costs and expenses incurred by the University as a result of such suspension;
- 3.3.2 charge reasonable debt recovery costs together with interest (both before and after any judgement) on the amount outstanding, on a daily basis at the statutory rate in force on the due date under the Late Payments of Commercial Debts (Interest) Act 1998.

That interest will be calculated from the date or last date for payment to the actual date of payment, both dates inclusive, and will be compounded quarterly. The Sponsor will pay that interest to the University on demand.

- 3.4 The University will own all equipment purchased or constructed by or for the University for the Project.

4. USE AND EXPLOITATION OF INTELLECTUAL PROPERTY

- 4.1 This Agreement does not affect the ownership of any Background or any other information, techniques, data, results, design, technology, materials, inventions or software that are not Results. The Background will remain the property of the party that contributes it to the Project (or its licensors).



PC

No licence to use or sub-license any Intellectual Property, Background or Results is granted or implied except the rights expressly granted in this Agreement. All rights not expressly granted are reserved to the rights holder.

4.2 Each party grants the other a royalty-free, non-exclusive licence to use its Background for the purpose of carrying out the Project, but for no other purpose.

4.3 The University will own the Results and all Intellectual Property in them.

4.4 Ownership of Intellectual Property includes the exclusive right to register and maintain any protection for those rights, unless otherwise agreed.

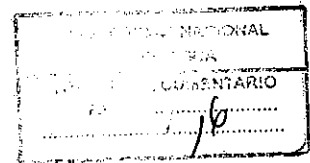
4.5 4.5.1 If the Sponsor serves an Option Notice, the University's Nominee and the Sponsor will negotiate during the Negotiation Period for a licence to use Intellectual Property in the Results on fair and reasonable terms.¹

4.5.2 The Sponsor may ask the University to extend the Negotiation Period or to apply for a patent on condition that the Sponsor reimburses the patent filing and prosecution costs and expenses incurred since the Effective Date. The obligation to reimburse will continue until the grant of a licence under this clause to the Sponsor or the end of six months beginning on the last day of the Negotiation Period, whichever shall occur first. Once the Sponsor's obligation to reimburse has ended, the University is under no obligation to maintain the patent. If the University later licenses or assigns to a third party any of the Intellectual Property in the Results for which the Sponsor has paid any filing costs and expenses, the University will reimburse such of those costs and expenses to the Sponsor as may be reasonable in the circumstances.

4.5.3 The Sponsor will inform the University about any public or commercial benefit arising from the Sponsor's use or exploitation of any Result if the University so requests at any time before the fifth anniversary of the Effective Date.

4.6 For the avoidance of doubt, the Sponsor acknowledges and agrees that despite the grant of any rights under this Agreement, the University and each employee and student of the University will retain the irrevocable, royalty-free right to use the Results for the purposes of academic teaching, publication and academic research, including without limitation as background intellectual property for any academic research project (whether commercially or internally funded research, or research pursuant to EC, government or other public or charitable research funding) and to license other institutions for these purposes. The right to publish in this clause is subject to clause 5.

¹ Cambridge Enterprise's principles for commercialisation are set out at <http://www.enterprise.cam.ac.uk/company-information/mission-goals-principles/>



5. PUBLICATION

- 5.1 The Sponsor may not publish any Result prior to publication by the University, without the University's prior written consent.
- 5.2 The University will give to the Sponsor written details of any Results and any Sponsor's Background that any University employee or student intends to publish, at least 30 days before the proposed submission date. Within 14 days beginning on the date of the University notice the Sponsor may give written notice requiring the University to delay publication for a maximum of 3 months to enable filing for a patent or similar protection, or removal of the Sponsor's Confidential Information specified in its notice. For the avoidance of doubt, notification is not required for University teaching or internal meetings.
- 5.3 Provided a notice has not been given under clause 5.2, any employee or student of the University (whether or not involved in the Project) may, publish any of the Results.
- 5.4 Nothing in this Agreement will prevent submission, University examination or deposit in a University library of a thesis based on any of the Results. The University will notify the Sponsor at least 30 days before the thesis is to be submitted. Within 14 days beginning on the date of the University's notice the Sponsor may, request in writing that external examiners sign confidentiality undertakings in respect of any Sponsor Confidential Information or to enable filing for patent protection. If the Sponsor does not so request within that period or, if so requested the University obtains signed confidentiality undertakings, examination of the thesis may proceed.

6. CONFIDENTIALITY

- 6.1 Subject to clause 5, neither party will, either during the Project or for 3 years after its end, disclose to any third party, nor use for any purpose (other than as expressly provided under this Agreement) any of the other party's Confidential Information without prior written consent.
- 6.2 Neither party will be in breach of any obligation to keep any Confidential Information confidential to the extent that it:
- 6.2.1 was known to the party making the disclosure before its receipt from the other party, and was not then already subject to any obligation of confidentiality to the other party;
 - 6.2.2 is or becomes publicly known without any breach of this Agreement or any other undertaking to keep it confidential;
 - 6.2.3 [has been obtained by the party making the disclosure from a third party who had no reason to believe that there had been a breach of an obligation of confidentiality owed to the other party;
 - 6.2.4 has been independently developed by the party making the disclosure;] or
 - 6.2.5 must be disclosed by law or order of court or competent authority (including without limitation under the Freedom of Information Act 2000), provided in all cases the other party is notified as early as possible prior to disclosure.

- 6.3 The University will not be in breach of this clause 6, by publishing in compliance with clause 5.
- 6.4 The Sponsor will not be in breach of this clause 6 by exercising any right expressly granted by this Agreement provided the recipient undertakes to keep the disclosed information confidential.
- 6.5 The Sponsor will respond within 5 Business Days beginning on the date of a University request for information in relation to a statutory exemption under clause 6.2.
- 6.6 Neither party will use the other's name or logo or the name of any of the Key Personnel in any marketing or other publication, without first obtaining the other's written consent [except that the University may identify that sums have been received from the Sponsor in the University reports and similar publications].
- 6.7 The obligations in this clause 6 supersede any confidentiality or non-disclosure agreement signed by the parties which relates to the work to be undertaken in the Project.

7. **LIMITATION OF LIABILITY**

7.1 The Sponsor acknowledges and agrees that the Project is of an experimental and developmental nature. Neither of the parties makes any representation or gives any warranty to the other that any advice or information given by it or any of its employees or students who work on the Project, or the content or use of any Results, Background, or materials, works or information provided, will not constitute or result in any infringement of third-party rights.

7.2 The express undertakings and warranties given by the parties in this Agreement are in lieu of all other warranties, conditions, terms, undertakings and obligations, whether express or implied by statute, common law, custom, trade usage, course of dealing or in any other way. All of these are excluded to the fullest extent permitted by law.

7.3 Nothing in this Agreement limits or excludes either party's liability for death or personal injury or any fraud or for any sort of liability that, by law, cannot be limited or excluded.

7.4 Subject to clause 7.3, and except under the indemnity in clause 7.6, the liability of either party to the other and any of the Indemnified Parties to the Sponsor for any breach of this Agreement or negligence or arising in any other way out of the subject matter of this Agreement, the Project, the Results, or Background, will not extend to any indirect damages or losses; or to any loss of profits, data, loss of contracts or opportunity, whether direct or indirect, even if the party bringing the claim has advised the other of the possibility of those losses, or if they were within the other party's contemplation.

7.5 Subject to clause 7.3, the aggregate liability of each party to the other (which in the case of the University shall mean the aggregate liability of the Indemnified Parties) for all and any breaches of this Agreement, any negligence, or arising in any other



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way out of the subject matter of this Agreement, the Project, the Results and Background, will not exceed in total the Financial Contribution.

7.6 Notwithstanding anything else in this Agreement the Sponsor will indemnify the Indemnified Parties in full against third party claims or judgements (including without limitation in contract, tort, negligence or for breach of statutory duty or misrepresentation) which relate to or arise from the University's use of the Sponsor's Background or the Sponsor's (or that of any sub-licensee pursuant to clause 4.5) use of or reliance on any of the Results, associated advice or information or an Indemnified Party's Background provided that the University:

7.6.1 promptly notifies the Sponsor of details of the claim;

7.6.2 does not make any admission in relation to the claim;

7.6.3 allows the Sponsor to have the conduct of the defence or settlement of the claim [providing the Sponsor takes into account the University's reasonable reputations about the conduct or settlement]; and

7.6.4 gives the Sponsor all reasonable assistance (at the Sponsor's expense) in dealing with the claim.

The indemnity in this clause will not apply to the extent that the claim arises as a result of an Indemnified Party's deliberate breach of this Agreement or its knowing infringement of any third party's Intellectual Property.

8. **FORCE MAJEURE**

Neither party will be liable for any failure or delay due to circumstances beyond its reasonable control (except a payment obligation) but must notify the other party promptly. If the delay in performance is more than 6 months, the other party may terminate this Agreement with immediate effect by giving written notice.

9. **TERMINATION**

9.1 Either party may terminate this Agreement with immediate effect by giving written notice to the other party if:

9.1.1 the other party is in material breach (including any non-payment) and, if the breach is remediable, has failed to remedy within 60 days of being required to do so in writing; or

9.1.2 the other party becomes insolvent, or if an order is made or a resolution is passed for its winding up (except voluntarily for the purpose of solvent amalgamation or reconstruction), or if an administrator, administrative receiver or receiver is appointed over the whole or any part of the other party's assets, or if the other party makes any arrangement with its creditors.

9.2 Each of the parties will notify the other promptly if at any time any of its Key Personnel is unable or unwilling to continue to be involved in the Project. The party who originally appointed that person will use reasonable endeavours to notify a successor, which the other party will not unreasonably refuse to accept. If a successor has not been appointed within 6 months beginning on the date of that



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notice, either party may terminate this Agreement by then giving the other not less than 3 months' notice.

9.3 Clauses 1, 4 (subject to clause 9.6), 5, 6, 7, 8, 9.3, 9.4, 9.5 and 10 will survive the expiry of the Project Period or the termination of this Agreement for any reason and will continue indefinitely.

9.4 On the termination of this Agreement, the Sponsor will pay the University pro rata for all work done prior to termination to the extent the Financial Contribution has not been paid.

9.5 Termination is without prejudice to any accrued rights. If the University terminates under clause 9.1 or either party terminates under clause 8 or 9.2, the Sponsor will in addition meet all costs which cannot reasonably be cancelled and reimburse:

9.5.1 the employment costs of staff appointed to the Project before the service of the notice, provided that the University takes all reasonable steps to minimise those costs;

9.5.2 a proportion of any redundancy costs incurred as a direct result of the termination of this Agreement, calculated by dividing the individual's involvement in the Project by the duration of his period of employment by the University; and

9.5.3 student-related costs including without limitation fees and maintenance.

Reimbursement will continue until the effective date of termination of each staff contract or studentship or the date on which the Project was to have ended (whichever is the earlier).

9.6 If the University terminates this Agreement under clause 9.1, clause 4.5 shall not survive termination nor shall any Option Notices which have been served even if the Negotiation Period has not yet expired.

10. **GENERAL**

10.1 **Notices:** Any notice to be given under this Agreement must be in writing, and may only be delivered as follows:

Method of service	Deemed day of receipt
By hand or courier	the day of delivery
By pre-paid first class post	the second Business Day after posting
By recorded delivery post	the next Business Day after posting
By fax (provided the sender's fax machine confirms complete and error-free transmission of that notice to the correct fax number)	the next Business Day after sending or, if sent before 16.00 (sender's local time) on the Business Day it was sent



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The parties' respective representatives for the receipt of notices are, until changed by notice given in accordance with this clause, as follows:

For the University:	For the Sponsor:
Head of the Research Operations Office, University of Cambridge, Greenwich House, Madingley Road, Cambridge CB3 0TX. Fax number 01223 332988 Notices are to be copied to the Principal Investigator	Dr. Jorge Hugo Jhoncon Kooyip, Vice Presidente de la Comisión Organizadora de la Universidad Nacional de Moquegua, Prolongación calle Ancash s/n, Moquegua, Perú Or his successor appointed under clause 9.2

10.2 **Assignment** Neither party may assign or transfer this Agreement, or any of its rights or obligations under it, without the other party's prior written consent, not to be unreasonably withheld or delayed, (except that the University may assign the Results, including the Intellectual Property in any of the Results, to the University's Nominee).

10.3 **Illegal/unenforceable provisions:** If the whole or any part of any provision of this Agreement is void or unenforceable in any jurisdiction, the other provisions of this Agreement, and the rest of the void or unenforceable provision, will continue in force in that jurisdiction, and the validity and enforceability of that provision in any other jurisdiction will not be affected.

10.4 **Waiver or Variation:** A provision of this Agreement or any right created under it cannot be waived or varied or amended except by the parties' written agreement.

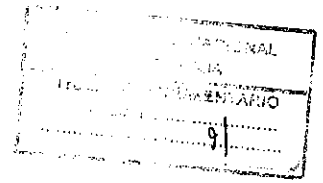
10.5 **No agency:** Nothing in this Agreement creates, implies or evidences any partnership or joint venture between the parties, or the relationship between them of principal and agent. Neither party has any authority to make any representation or commitment, or to incur any liability, on behalf of the other.

10.6 **Entire agreement:** This Agreement constitutes the entire agreement between the parties relating to its subject matter. Each party acknowledges that it has not entered into this Agreement on the basis of any warranty, representation, statement, agreement or undertaking except those expressly set out in this Agreement. However, this clause does not exclude any liability in respect of any fraudulent misrepresentation.

10.7 **Third parties** The Indemnified Parties may enforce those terms of this Agreement which expressly confer rights on them, subject to and in accordance with the Contracts (Rights of Third Parties) Act 1999. Save as aforesaid no term of this Agreement shall be enforceable under that Act by a person who is not a party to this Agreement, but this shall not affect any right or remedy of any third party which exists or is available other than under that Act. Notwithstanding that any term of this Agreement may be or become enforceable under that Act by a person which is



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not a party to it, this Agreement may be amended in any respect, or suspended, cancelled or terminated by agreement in writing between the parties, in each case without the consent of such third party.

10.8 **Governing law:** This Agreement is governed by, and is to be construed in accordance with, English law. The English Courts will have exclusive jurisdiction to deal with any dispute which has arisen or may arise out of, or in connection with, this Agreement, except that either party may bring proceedings for an injunction in any jurisdiction.

10.9 **Escalation:** Either party may refer a dispute by written notice to the other for joint resolution by the Head of the Research Operations Office, and Mag. Maribel Rocio Pacheco Centeno, Head of Research Management Office. or their nominees. Either party may litigate if the matter has not been resolved within 14 days, beginning on the date of such notice. Either party may apply for an injunction, whether or not any issue has been escalated under this clause.

10.10 **Further Assurance:** Each party shall use all reasonable endeavours to do or procure to be done all further acts and execute or procure the execution and delivery of all other documents as the other party may from time to time reasonably require for the purposes of giving that party the full benefit of its rights under this Agreement.

SIGNED for and on behalf of the University:

Name **Philip Cull**
Position **Assistant Director**

Signature

Read and understood by the Principal Investigator

Signature

SIGNED for and on behalf of the Sponsor:

Name: Oswaldo Napoleón Ramos Chumpitaz

Position: President of the Commission of Organisation of National University of Moquegua

Signature
UNIVERSIDAD NACIONAL DE MOQUEGUA
DR. OSWALDO N. RAMOS CHUMPITAZ
PRESIDENTE



SCHEDULE 1
The Financial Contribution

Sponsor PO number:

Payments quarterly/annually in advance	Year 1 (£)	Year 2 (£)	Year 3 (£)	Total (£)
Beginning on:	604,555			604,555

All amounts in this Schedule exclude VAT.

All payments of the Financial Contribution will be made in Pounds Sterling by BACS to the following bank account, without deduction of bank charges:

Name of Account: University of Cambridge
 Account Number: 10921084
 Bank Sort Code: 20-17-19
 Name of Bank: Barclays Bank plc
 Address of Bank: St Andrew's Street Branch, 9-11 St. Andrew's Street, Cambridge, CB2 3AA, United Kingdom
 Reference: RG 85120



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SCHEDULE 2

The Project

1. Description

Investigate the impact of mining activities on hydrology and water quality in Peru's Moquegua region.

The full project is described in detail in **Appendix A** (see below). This contract covers only the one-year pilot era programme.

2. University Key Personnel

- Prof. Crispin Barnes, a condensed matter physicist and head of group.
- Dr Luis De Los Santos Valladares, a condensed matter physicist and expert in mineral analysis.
- Mr Eustace Barnes M.Sc, an expert in Peruvian environmental and biological science.

Sponsor Key Personnel

- Dr. Oswaldo Napoleon Ramos Chumpitaz, president of the Commission of Organization.
- Dr Jorge Hugo Jhoncon Kooyip, vice president for research of the Commission of Organization.
- Mag. Maribel Rocio Pacheco Centeno, Head of Research Management Office.

3. Resource summary and justification of resources

Cambridge

The PI at Cambridge, Prof. C.H.W. Barnes (10% £9,975) will coordinate the project, chairing the weekly meetings in Cambridge and discussing research work in Cambridge and Peru on a daily basis. He will also coordinate with UNAM administration and will visit Moquegua twice. Dr A. Irvine (25% £12,519) coordinate cleanroom fabrication of assay related technology, daily supervision of PDRA2, communication with field workers RA1 and PDRA1.

RA1: We require a bilingual environmental scientist with extensive field experience working in Peru who is able to coordinate around 15 students collecting samples from potentially remote locations in the Moquegua region. This role will also include, teaching, data analysis and frequent travel between the UK and Moguegua. (UCAM FEC RA £44,389.) We expect this role to be taken by our researcher Co-I Eustace Barnes M.Sc.

PDRA1: We require a bilingual materials scientist with extensive field experience working in Peru who is able to coordinate around 15 students preparing samples collected from biological material, soils, water and from the air. This role will also include, teaching, data analysis and frequent travel between the UK



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and Moguegua. (UCAM FEC RA £45,066.) We expect this role to be taken by our researcher Co-I Dr Luis de Los Santos Valladares.

PDRA2: We require a physicist or engineer expert in cleanroom fabrication, microfluidics, thin-film growth and assay technology. (UCAM FEC RA £44,389.) No person is specified for this role.

We estimate that between the PI, research assistants and students, 12 trips at £2,500 between the UK and Peru will be necessary. (£30,000).

Fabrication of the necessary assay technology will make extensive use of the TFM thin-film growth facility (£20,000), cleanrooms (£15000), pooled labour (£2,287) and infrastructure technicians (£7838). Thin-film samples arriving from Peru will be analysed in the Cavendish Microscopy Suite (£5000). Consumables costs will be (£15,000).

Since the project's main output will be research papers, we will require three conference or workshop trips at £2000. (£6000).

UCAM Estate and Indirect costs will be £178,591. An application has been made by the principal investigator to reduce these costs based on RA1 being based at UNAM for 75% of his time and PDRA2 being based at UMAN for 50% of his time. If this application is successful, the costs can either be removed from the grant or, preferably, transferred to UNAM as Estate and Indirect costs.

Moquegua

In order to advertise our work and bring in support from UNAM staff and students we will run a regular seminar series. Once a month for 8 months we will invite a high profile speaker on environmental issues. (£20,000).

We request a minimum of 200 sq m of office and lab space. We will require a bilingual administrator to co-ordinate the field and lab activities of C-MIEP staff and students and all administrative matters relating to them including communication with Prof. Barnes. (£15,000). We will require office equipment including, chairs, tables, computers, seminar-room equipment (£20,000). We will require access to local expertise through consultancy. This will include, at least, experts in mining assay tests, and experts in local geology (£10,000).

A sample collection team of roughly 15 students will be required for seven months (£52,500). A sample preparation and *in-situ* analysis team of roughly 15 students will be required for 3 months (£22,500). We will require consumables relating to these activities (£18,500) and local travel (£10,000).

4. Sponsor Background

University Background (provided it is at the free disposal of the University)

All background for UCAM technology has been published and is publically available.

Third party Background

There is no relevant third party background.

APPENDIX A



Department of Physics



Dated: Cambridge 30th March 2016.

This document

- builds on the Memorandum of Understanding between the **National University of Moquegua (UNAM)** and the **University of Cambridge, Department of Physics (UCAM)**, dated on 9th November 2015. Attached to this document.
- is intended to **guide discussion** towards the creation of a **statement of intent** for both parties that can be used as a basis for the creation of a mutually beneficial **contract** between the **National University of Moquegua** and the **University of Cambridge, Department of Physics**.

Participants in the discussion

UCAM:

- Prof. Crispin Barnes, a condensed matter physicist and head of group.
- Dr Luis De Los Santos Valladares, a condensed matter physicist and expert in mineral analysis.
- Mr Eustace Barnes M.Sc, an expert in Peruvian environmental and biological science.

UNAM:

- Dr. Oswaldo Napoleon Ramos Chumpitaz, president of the Commission of Organization.
- Dr Jorge Hugo Jhoncon Kooyip, vicepresident for research of the Commission of Organization.

Proposal

We propose the creation of:

The Cambridge-Moquegua Institute of Environmental Physics (C-MIEP)

to be funded by UNAM through the Cannon-Minero.

Summary

The C-MIEP will be a research institute aimed specifically at the study of **Peruvian environmental physics**. It will be physically located at the Moquegua Campus of UNAM. This institute will perform

scientific research activities aimed at investigating the impact of mineral extraction on the environment, with particular reference to water resources, agro-ecology, and ecological integrity. It will operate initially in the Moquegua Region but in the long term across the whole of Peru. **The first year is intended to be a pilot programme.** It will include the exchange of researchers and students between UNAM and UCAM, field research, and analysis of soil, biological material, water and air using both *in-situ* and *ex-situ* techniques.

Economic Context

We believe that mineral extraction is vitally important for the economy and future development of Peru. At present it accounts for 50% of Peru's GDP and employs a significant proportion of the population. However, the environmental impacts of mineral extraction are also well documented and there are a wide variety of conflicts of interest arising from extractive activities throughout Peru. It is, of course, not in the interests of the Peruvian government, the people of Peru, or the mining corporations in Peru to simply accept the negative impacts of mineral extraction. It would be an aspiration of C-MIEMP to be able to utilise research findings to inform statutory regulation on the part of government authorities and operational decisions on the part of mining corporations to avoiding or mitigate the negative impacts of mineral extraction.

Background

The University of Cambridge is a leader in the international ranking of Universities. Within the Physics Department, we have substantial technical and scientific resources at our disposal enabling us to engage in any scientific research programme. We also have a network of interdisciplinary collaborators and contacts that allow us to apply our methods to a wide variety of fields from environmental science and biology through to mineral analysis and its dispersion through the environment.

Of particular relevance to this project, over the past eight years, in the Physics Department, we have been working on a **platform technology enabling multiplexed assays** and we are now keen to adapt it to enable a wide variety of different types of test on water and soils. We are keen to initiate a large-scale practical research project that will enable us to define which tests are the most useful and to determine the practicalities of applying them in the field. We believe that the C-MIEMP will be ideal vehicle to achieve this.

UNAM has six undergraduate schools with interests linked to the C-MIEMP: Management of Public Social Development; Agroindustrial Engineering; Mining Engineering; Environmental Engineering; Fishing Engineering and Computing Engineering. We would hope to engage with students from any of these schools offering **final year projects** and potentially **M.Sc and Ph.D projects**.

Given the availability of funds through the 'Canon Minero' there is clearly a significant opportunity for UNAM and UCAM to collaborate in a mutually beneficial research project. The C-MIEMP will allow us to develop our technology, contribute to developing the analytical techniques involved in assessing the impacts of mineral extraction, and promote research in environmental physics at both institutions.

Project Objectives

The overall intention of the C-MIEP will be to undertake research into the environmental consequences of extractive industries in Peru in the broadest sense. We intend to investigate the impacts of mining within an intuitive typology of impacts; that is, those consequences that we might reasonably expect to result from extractive activity to give the logical framework within which our research will be ordered.

This would involve four elements:

- (A) Application and Development of new techniques in assessing the impacts of mining. We would be utilizing a variety of cutting edge technologies we have developed as well as working on new sensing technologies.
- (B) Comparing the efficacy of existing techniques involved in predicting, and identifying the impacts of mineral extraction.

Our fieldwork would provide objective measures of the impact of mineral extraction and assist in developing innovative strategies that would help mining companies avoid the negative impacts associated with their industry.

- (C) This collaborative venture would establish C-MIEP at the Moquegua campus of UNAM. Research undertaken in Peru would produce a broad range of studies on the impacts of mineral extraction on the environment. We hope that these studies will assist and inform the development of a more robust regulatory framework for the extractive industries in Peru.

- (D) Once established, the C-MIEP will aim to become a Centre of Excellence. We expect the complex relationship between mining, the environment, and sustainable development to be a core driver of the C-MIEP's mission. The C-MIEP would provide solutions to significant challenges posed by the extractive industries for broader economic and environmental concerns within the Peruvian economy. We would engage innovative programs that would focus on contributing to industrial development, efficient environmental management and clean energy through collaborative ventures within a wide range of agencies.

Activities and timeline

This is a long-term project divided into three eras:

1) Pilot era (one year):

Coordinators: Prof. Crispin Barnes, based in the UK lead coordinator for creation of the C-MIEP, Dr Luis De Los Santos Valladares, based partly at Moquegua and partly in the UK, and responsible for soil, mineral and water analysis and for related outreach and teaching. Mr Eustace Barnes M.Sc, based partly at Moquegua and partly in the UK, and responsible for sample collection based on geological, environmental and biological factors and for related outreach and teaching.

Aim: To establish the C-MIEP as an active research group.



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Timeline for the First Year Pilot Era

Time	Activity
From month 1 to month 2	Visit of researchers from UCAM to UNAM to identify suitable study sites.
From month 3 to month 12	Collection of samples and <i>in-situ</i> measurements with the help of researchers and students from UNAM and UCAM.
From month 5 to month 12	Ex-situ measurements at UCAM.
From month 7 to month 10	Visit of researchers from UNAM to UCAM for training. Data processing with students and researchers from UNAM.
From month 10 to month 12	Analysis of data with researchers and students from UNAM. Writing scientific articles and final report.

Initially, we plan employ two teams of fieldworkers to investigate water quality in two catchments in Moquegua and possibly one in Madre de Dios. These teams would ideally consist of UNAM students working with their respective heads of department and students from UCAM on summer placements.

The projects would establish the viability of our collaboration and give us a model for our future research.

2) Establishment era (five years):

Coordinators: Prof. Crispin Barnes, Dr Luis De Los Santos Valladares and Mr Eustace Barnes. At this stage we expect to include coordinators from UNAM.

Aim: To establish the C-MIEP as a Centre of Excellence in Environmental Physics investigating the impact of mineral extraction on the environment with particular reference to water resources, agro-ecology and ecological integrity in the Moquegua Region.

We aim to generate data sets for hundreds of different chemicals found in the environment and assess, not only their presence or absence, but also their relative concentrations, movements and their exact source. We will effectively be able to conduct thousands of tests and hope to be able to produce detailed maps of the distribution and relative concentrations these chemicals across wide areas. We will run this in parallel with base-line data assessments of environmental quality, human health and agricultural indices.

During this period an appropriate building for the research centre will be constructed together with the nomination of a Director for the Centre. A regular interchange of researchers and students



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between UCAM and UNAM will be established. The research teams will generate environmental data, publications, conference talks, and enhance our knowledge of the impacts of mining. We will also train Ph.D and M.Sc students and undergraduates in relevant analytical techniques.

3) Established era (permanent period):

Once the C-MIEP is established and accepted as making an important and useful contribution to environmental physics, a renegotiation for continued participation of UCAM will be evaluated. In the event of positive agreement between UCAM and UNAM, a new contract with new objectives will be formulated.

Expected results, Outcome and Impact

We will create the C-MIEP at the Moquegua campus of UNAM. We expect it to make a significant contribution to the field of environmental physics internationally, contributing scientific knowledge and technological innovation. We also hope that the C-MIEP will assist and inform the development of a more robust regulatory framework for the extractive industries in Peru.

We hope to create an active community of researchers shared between the UCAM and UNAM contributing to environmental science at the highest level internationally. Our contributions will be reflected in scientific publications, intellectual property, engagement with mining companies and the local community, and potentially through commercialisation of technologies we will develop.

Experts from academia and industry from around the world will be encouraged to visit the institute, give seminars, deliver training programs, and engage in research projects with institute researchers.

The institute will be equipped with major, fully operational research and educational facilities. All the equipment acquired during this project will belong to and stay at UNAM to ensure its long-term existence and independence as an internationally leading institute for environmental physics in Peru.

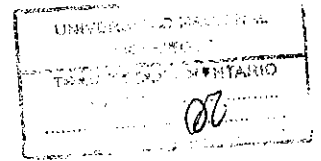
Funding

For the Pilot era (one year duration):

The PI at Cambridge, Prof. C.H.W. Barnes (10% £9,975) will coordinate the project, chairing the weekly meetings in Cambridge and discussing research work in Cambridge and Peru on a daily basis. He will also coordinate with UNAM administration and will visit Moquegua twice. Dr A. Irvine (25% £12,519) co-ordinate cleanroom fabrication of assay related technology, daily supervision of PDRA2, communication with field workers RA1 and PDRA1.

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UCAM Estate and Indirect costs will be £178,591. An application has been made by the principal investigator to reduce these costs based on RA1 being based at UNAM for 75% of his time and PDRA2 being based at UMAN for 50% of his time. If this application is successful, the costs can either be removed from the grant or, preferably, transferred to UNAM as Estate and Indirect costs.

Moquegua

In order to advertise our work and bring in support from UNAM staff and students we will run a regular seminar series. Once a month for 8 months we will invite a high profile speaker on environmental issues. (£20,000).

We request a minimum of 200 sq m of office and lab space. We will require a bilingual administrator to co-ordinate the field and lab activities of C-MIEP staff and students and all administrative matters relating to them including communication with Prof. Barnes. (£15,000). We will require office equipment including, chairs, tables, computers, seminar-room equipment (£20,000). We will require access to local expertise through consultancy. This will include, at least, experts in mining assay tests, and experts in local geology (£10,000).

A sample collection team of roughly 15 students will be required for seven months (£52,500). A sample preparation and *in-situ* analysis team of roughly 15 students will be required for 3 months (£22,500). We will require consumables relating to these activities (£18,500) and local travel (£10,000).

For the establishment era (five years duration):

An amount of **S/46'000,000.00** (Forty six million Peruvian Nuevos Soles) is required. The contributions will be distributed as following:

- National University of Moquegua: S/25'000,000
- Regional Government of Moquegua: S/20'000.000
- University of Cambridge, Department of Physics: S/10'000,000



PC

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>> On 2017-02-23 19:25, Luis De Los Santos V wrote:

>> Estimados Investigadores visitantes

>>

>> La presente es para hacerles recordar que durante su visita, la

>> Universidad de Cambridge cubrirá a cada uno de ustedes:

>>

- >> 1) El costo por derecho a la postulación de la visa (*)
- >> 2) Los pasajes Aéreos Lima-Londres-Lima.
- >> 3) Hospedaje y manutención
- >> 4) Transporte Interno en Cambridge (guardar recibos).

>>

>> (*) Importante: Por favor guardar recibos. Si por algún motivo el
>> postulante a la visa han realizado multiples solicitudes, solo se
>> reembolsará aquel recibo en el cual ha dado como resultado el
>> otorgamiento de la visa.

>>

>> Por favor, recuerden que todos los pasos a seguir, incluido
>> requisitos, tiempo y costos de postulación se encuentran en la
>> página

>> web: <https://www.vfsglobal.co.uk/peru/> [1]

>>

>> Además pueden consultar directamente con Julia por si tuvieran
>> alguna duda.

>>

>> Saludos cordiales

>>

>> Luis D.V