UNIVERSIDAD
AUTONOMA
METROPOLITANA

Casa abierta al tiempo **Azcapotzalco**

Marzo 16, 2015
A.CBI.TG.033.15

DR. LUIS ENRIQUE NOREÑA FRANCO
PRESIDENTE DEL
CONSEJO DIVISIONAL DE CBI
P R E S E N T E

Con base en lo estipulado en el número 3 de los Lineamientos del Consejo Divisional de Ciencias Básicas e Ingeniería para el Funcionamiento de los Comités de Estudio de Licenciatura aprobados por el Consejo Divisional de Ciencias Básicas e Ingeniería en su sesión 263 ordinaria; para dar cumplimiento a los numerales 3, 1, 3.2 y 3.3, los profesores que firmamos el presente documento, a continuación sometemos a su consideración la integración del **Dr. Risto Fermín Rangel Kuoppa**, al Comité de Estudios del Tronco General de CBI; con lo cual el comité quedaría conformado de la siguiente manera:

1) Integración del **Dr. Risto Fermín Rangel Kuoppa,** del Departamento de Sistemas.

2) Permanecen en el comité los siguientes profesores:
   a) **M. en C. Manuel Meda Vidal**
   b) **Dr. Mauricio Bastién Montoya**
   c) **M. en C. Margarita Portilla Pineda**
   d) **M. en C. José Ventura Becerril Espinosa**

Anexo al presente el "curriculum vitae" del profesor Risto, en el cual puede observarse su experiencia en las uea del Tronco General de CBI, que pertenecen al Departamento de Sistemas, así como, su interés y compromiso por apoyar las actividades correspondientes a la docencia de la División; por lo cual, le solicitamos, si usted así lo considera conveniente, presentarlo al Consejo Divisional para su análisis y en su caso aprobación.

Sin más por el momento, agradecemos su atención y le enviamos un cordial saludo.

A T E N T A M E N T E ,
"CASA ABIERTA AL TIEMPO"
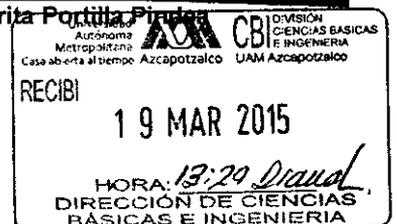
Mtra. Marina Salazar Antúnez
Coordinadora del TG de CBI

Vo.Bo. Manuel Meda Vidal

Vo.Bo. Mauricio Bastién Montoya

Vo.Bo. Margarita Portilla Pineda

Vo.Bo. José Ventura Becerril Espinosa

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DIVISIÓN
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E INGENIERÍA
CBI
UAM Azcapotzalco

MSA/alv.

RISTO FERMIN RANGEL-KUOPPA
(Ph.D. in Computer Science – Vision|Graphics
& Computing Systems Engineer)
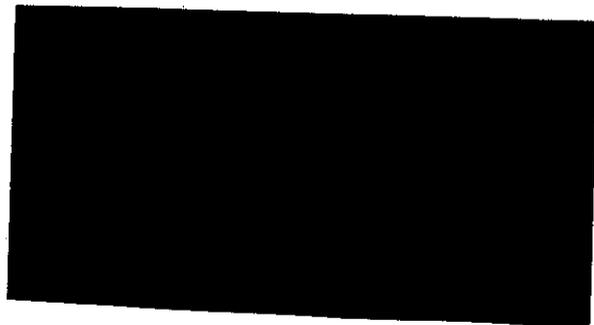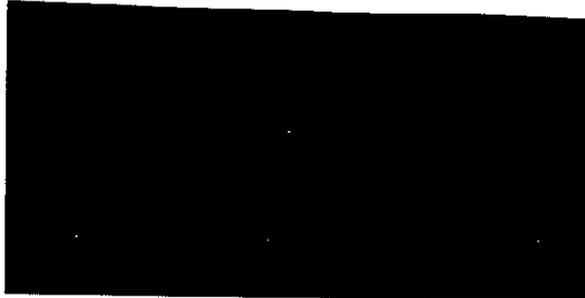
WORK EXPERIENCE:

Software Developer and Researcher
January 2014 – February 2015 +
Collaboration project labeled: "ProDiActaIEDF" between IEDF (Instituto Electoral del Distrito Federal – Mexico Federal District Electoral Institute) and UAM (Universidad Autónoma Metropolitana)

> ProDiActaIEDF is a fourth generation software (support to decision making) and is designed to semi-automate the processing of tally sheets filled out by hand during elections without altering the legal responsibility of the copyist. In ProDiActaIEDF techniques such as Digital Image Processing, Pattern Recognition, Intelligent Character Recognition (ICR), Optical Character Recognition (OCR), Databases, Security, and Software Interoperability are used. ProDiActaIEDF was designed using the MVC (Model-View-Controller) software architectural pattern. The technologies used are: WPF, SQL Server, C#, and WIA 2.0. Some media have echoed this development:
> http://www.elinnovador.mx/noticia.php?w=1032
> http://www.jornada.unam.mx/2014/04/17/politica/015n1pol
> http://www.oem.com.mx/elsoldemexico/notas/n3459627.htm
> http://www.uamero.uam.mx/UAMeros/insides/newsc.aspx?pid=2833

University Professor/Researcher
Universidad Autónoma Metropolitana – México
Computing Systems Area, Systems Department
September 2007 – Current Job

> **Management positions:**
> * Head of the Computational Systems Research Area (2012-2014)
> **Research and Development:** Mainly computer graphics/vision but software agents and hardware-software co-design too. Scientific visualization and rendering complex virtual worlds (with Direct3D/DirectX API), exploit graphics hardware, and computer vision problems. I also work in mobile and ubiquitous computing, and rich media content distribution.
> **Courses (graduate and undergraduate) taught:** "Selected Topics in Computer Science" Advanced Computer Graphics, "Computer Networks", "Base Software", "Data Structures and Object Oriented Programming", "Programming", "Advanced Programming", "Numerical Methods", "Logic Circuits I", and "Logic Circuits II", "Computer Graphics", among others.

Software Developer
Lorax Co. (Saskatoon, SK, Canada)
January 2005 – June 2005

Sessional Lecturer
Universidad Autónoma Metropolitana – México
Digital Systems Area, Electronic Engineering Department
May 2001 – August 2002.

Graduate Assistant
Universidad Autonoma Metropolitana – México
Computer Sciences, Basic Sciences Division
September 2000 – May 2001 - México

Systems Analyst/Programmer
Praxis Corp. S.A. de C.V.
Software Consulting Department
October 1999 – January 2000 - México
      Projects: Human resources managing system   Client: Femsa Coca-Cola S.A. de C.V.
                Storage managing system   Client: Grupo Industrial Peñoles, S.A.

Professional services: programmer
Provided to: Jorge de Hoyos Consultant
January 1999 – May 1999 - México

Computing Assistant
Instituto Politécnico Nacional
Professional Studies Division
May 1998 – October 1998 - México

Computing Laboratory Assistant
Instituto Politécnico Nacional
ESCom University
February 1995 – July 1995 - México

EDUCATION:

GRADUATE:

Ph.D. in Computer Science (Computer Graphics)   2002-2007
University of Saskatchewan, Canada
Thesis title: "Automatic 3D Model Creation with Velocity-Based
Surface Deformations"

Master's in Computer Science (Computer Vision)   2000-2002
Universidad Autónoma Metropolitana, Mexico

Thesis title: "Tomographic 3D Reconstruction of Spark Discharges"
GPA: 10.00 in a scale of 0.00 to 10.00

UNDERGRADUATE:

Bachelor of Engineering, Computer Systems Engineering   1995-1999
Escuela Superior de Cómputo, Instituto Politécnico Nacional-Mexico
Thesis project: "Petri Net's Studio"-Software to simulate Petri Nets
GPA: 9.09 in a scale of 0.00 to 10.00

Vocational High School, Digital Systems Technician   1992-1995
C.E.C.yT. # 9 "Juan de Dios Bátiz", Instituto Politécnico Nacional-Mexico

AWARDS AND SCHOLARSHIPS:

Investigador Nacional Nivel "c" (SNI c) – National Researcher level "c"   2009
Award from the Mexican National Council for Science and Technology
(CONACyT).

The Elaine Barnhart Award, University of Saskatchewan   2006
Award provided to the students with the best Teaching Philosophy
in course GSR 989 - "Introduction to University Teaching"

Mexican National Council for Science and Technology (CONACyT)   2002-2007
Ph.D. Scholarship

"Diario de México – Los mejores estudiantes de México" Medal;
for achieving the best GPA in Computer Science at Master's
level in Mexico   2002

"Medalla al Mérito Universitario" Medal for achieving the   2002
best GPA in the Universidad Autónoma Metropolitana and
completing the degree in the minimum amount of time.

"Beca Fundación Telmex" Scholarship from Telmex Corp.   1997-1998
to study bachelors degree; the scholarship is awarded upon
the student performance.

RESEARCH AND DEVELOPMENT INTERESTS:

I have a deep interest in the topics related to computer graphics-vision and the development
and enhancement of virtual reality, augmented reality, image processing, pattern
recognition. This is due to my interest in using the computing systems as a tool for

supporting and enhancing the complex human process of sight (the sense by which we obtain most of our information).

I am also interested in developing custom-made software projects (including simulation tools); in particular, I enjoy designing and implementing solutions to challenging uncommon problems that require knowledge of computers at software and hardware levels. I am interested in research and developing software solutions from the most basic technical efficiency to the most abstract design in solutions integration and interoperability. Summarizing, I crave for a challenging job where computer capabilities (hardware and software) must be exploited to solve real-life problems.

I'm finishing a software for the Federal District Electoral Institute (IEDF in Spanish) called: ProDiActalEDF. ProDiActalEDF is a fourth generation software (support to decision making) and is designed to semi-automate the processing of tally sheets filled out by hand during elections without altering the legal responsibility of the copyist. In ProDiActalEDF techniques such as Digital Image Processing, Pattern Recognition, Intelligent Character Recognition (ICR), Optical Character Recognition (OCR), Databases, Security, and Software Interoperability are used. ProDiActalEDF was designed using the MVC (Model-View-Controller) software architectural pattern. The technologies used are: WPF, SQL Server. C#, and WIA 2.0. Some media have echoed this development:
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http://www.jornada.unam.mx/2014/04/17/politica/015n1pol
http://www.oem.com.mx/elsoldemexico/notas/n3459627.htm
http://www.uamero.uam.mx/UAMeros/insides/newsc.aspx?pid=2833

PUBLICATIONS:

"Generic Classifier Potential Users of Visual Systems"
Laura Patricia Ramírez Rivera and Risto Fermin Rangel Kuoppa
XV International Conference on Human Computer Interaction

"Model Creation by Velocity Controlled Surface Deformation"
R Rangel-Kuoppa and D Mould
Fifth International Workshop on Computer Graphics and Geometric Modeling (CGM 2006)

"High-order statistical texture analysis – font recognition applied"
C Avilés-Cruz, R Rangel-Kuoppa, M Reyes-Ayala, A Andrade-González, R Escarela-Pérez
Pattern Recognition Letters, Elsevier, 2005

"Distributed 3D Rendering System in a Multi-agent Platform"
R Rangel-Kuoppa, C Avilés-Cruz, and D Mould
Fourth Mexican International Conference on Computer Science, 2003

"3D Reconstruction of a Spark Discharge"
J L Hernandez-Avila, R Rangel-Kuoppa, C Aviles-Cruz, R Escarela-Perez
37th Internacional Universities Power Engineering Conference (UPEC2002)

Staffordshire University, Beaconside, Stafford
United Kingdom

"Reconstruccion tridimensional del canal de una descarga tipo spark. Caracterizacion de la trayectoria" – Tridimensional reconstruction of a sparks discharge channel.
J L Hernandez Avila, R Rangel-Kuoppa, C Aviles & R Escarela Perez
IEEE Section Mexico
13ª Reunión de Otoño de Comunicaciones, Computación, Electrónica y Exposición Industrial IEEE ROC&C 2002

"Reconstrucción Tomografica 3D de Descargas Electricas" – 3D tomographic reconstruction of electrical discharges.
XII Congreso interuniversitario
Electronica, Computación y Electrica
Instituto Tecnologico de la Laguna
Rama Estudiantil IEEE
Coahuila, Mexico
IEEE CIECE 2002

LANGUAGE SKILLS:

English tested:	TOEFL CBT 263 / TOEFL WBT 629
	IELTS Overall Band Score: 8.0
English experience:	5 years in Canada (Saskatoon, Saskatchewan): all academic training and professional work was done and tested in English.
Spanish:	Native Language

REFERENCES:

Lic. Héctor A. Robles García
Current job:
Area Director
Organization and Electoral Geography
Executive Suite
IEDF (Instituto Electoral del Distrito
Federal – Federal District Electoral
Institute)
hector.robles@iedf.org.mx
+1(52)55-5483-3800 ext. 5051
Relation: Former supervisor and contact of
a Software Development and Research
project between IEDF and UAM.

M. Comp. Sci. Jesús Hernández-Tapia
Current job:
Firmware Engineer – ID: SESA179940
Schneider Electric.
Victoria, Vancouver
Canada
jesusht@gmail.com
+1(778) 440-1508

Relation: Former supervisor – He was the
Head of the Digital Systems research area
in the Universidad Autónoma
Metropolitana (2000-2002)

Prof. Ralph Deters
Current job:
Faculty at the University of Saskatchewan
Department of Computer Science
University of Saskatchewan
Saskatoon, Saskatchewan, Canada
ralph@cs.usask.ca

Relation: I took a graduate course he
lectured during my Ph.D. studies (the
course was about Mobile and Ubiquitous
Computing)

M. Comp. Sci. Kamal Elbashir
Current job:
Vice President Technology
Lorax Software Corporation
Saskatoon, Saskatchewan
Canada
kamal.elbashir@gmail.com
+1(306)292-7560

Relation: Former employer and
supervisor – He is one of the founders
of Lorax Software Corp. with whom I
worked during my time in Lorax.

Prof. David Mould
Current job:
Faculty at Carleton University
School of Computer Science
Canada
mould@scs.carleton.ca
+1(613)520-2600 x8975

Relation: Former Ph.D. Supervisor

actual

		TRONCO GENERAL	
		COORDINADORA: Mtra. Marina Salazar Antúnez 02/05/2011	
ACUERDO	FECHA	NOMBRE DEL PROFESOR	DEPARTAMENTO
490.6.2	07/07/2011	Dr. Gustavo Mauricio Bastién Montoya	Ciencias Básicas
490.6.2	07/07/2011	Mtro. Manuel Meda Vidal	Ciencias Básicas
516.6.2	12/03/2013	Mtra. Margarita Portilla Pineda	Ciencias Básicas
539.6.1	29/04/2014	Mtro. José Ventura Becerril Espinosa	Ciencias Básicas

propuesto

		TRONCO GENERAL	
		COORDINADORA: Mtra. Marina Salazar Antúnez 02/05/2011	
ACUERDO	FECHA	NOMBRE DEL PROFESOR	DEPARTAMENTO
490.6.2	07/07/2011	Dr. Gustavo Mauricio Bastién Montoya	Ciencias Básicas
490.6.2	07/07/2011	Mtro. Manuel Meda Vidal	Ciencias Básicas
516.6.2	12/03/2013	Mtra. Margarita Portilla Pineda	Ciencias Básicas
539.6.1	29/04/2014	Mtro. José Ventura Becerril Espinosa	Ciencias Básicas
por confirmar		Dr. Risto Fermín Rangel Kuoppa	Sistemas