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Envigado, December 13th, 2019

To whom it may correspond
U.S. DEPARTMENT OF STATE
BUREAU OF CONSULAR AFFAIRS

EIA University, formerly known as Antioquia School of Engineering (www.eia.edu.co), institution of higher education, domiciled in Medellín, of a private nature, of common utility, not for profit, with legal status granted by means of the Resolution 20120 of November 12th, 1979, recognized as a University through the Resolution 020061, both issued by the Ministry of National University of Colombia, certifies that Professor Juan Alejandro Peña Palacio, identified with Colombian citizenship card No. 70'325.101 and who performs as Head of the Research Group of Computational Intelligence and Automation Research (GIICA), has participated in the formulation and execution of the following projects:

Project	Position	Duration (Months)	Start Date	End Date	Contract/Call	Dedication (Hours/Week)
Credit assignment model: and intelligent system application. NeuroScore model	Researcher	21	2-sep-08	15-feb-10	EIA University Internal Call 2008-01	2
Evolutionary strategies to determine the temporal behavior of the concentration of particulate matter – PMx	Director & Researcher	12	22-jan-10	17-dec-10	EIA University Internal Call 2009-02	15
Adaptative model for monitoring and measuring the risk of money laundering and terrorism financing - SARLAFT.	Researcher	11	14-jan-11	15-dec-11	EIA University Internal Call 2010-02	10
Fuzzy model for qualitative identification of processes to assess operational risk in Colombian companies	Researcher	11	14-jan-11	15-dec-11	EIA University Internal Call 2010-02	8
Modelling population dynamics with quantitative methods for decision making in the higher education: the strategic prospective.	Director & Researcher	12	20-feb-13	20-feb-14	EIA University Internal Call 2012-02	10
Discrete fuzzy model for measuring operational risk using fuzzy Petri net structures.	Researcher	11	27-jan-12	21-dec-12	EIA University Internal Call 2011-02	6

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Adaptative computational model for the classification of Alzheimer's patients through the default mode network from Neuro-functional magnetic resonance studies	Director & Researcher	12	18-mar-13	17-mar-14	Colciencias Contract 0697-2012	5
Model for assessing operational risk using an adaptive discrete fuzzy system of Fuzzy Petri nets and .NET Technologies.	Director	12	18-mar-13	17-mar-14	Colciencias Contract 0697-2012	8
Adaptive fuzzy model for the evaluation of operational risk in financial sector entities. "PRAGMA - COLCIENCIAS"	Researcher	12	20-sep-2013	20-sep-2014	Colciencias Contract 877-2014	8
Evaluation model for credit applications through intelligent systems	Researcher	18	24-jan-2014	19-nov-2015	Colciencias Contract 215-2014	10
Designing a Big Data Framework based on product lines to facilitate the use of models, tools, guides and services for information management and knowledge in NoSQL databases in health sector in Colombia.	Researcher	24	29-may-2015	29-may-2017	Contract 273 EIA University University of Medellín EAFIT University	12
Computational model for the automatic detection of neural networks in resting state in fMRI images for the diagnosis of early stage schizophrenia	Director & Researcher	10	25-jan-2016	25-jan-2016	EIA University Internal Call 2015-02	4
Identification of emotional patterns in audio-visual advertising using multidimensional neural models.	Director & Researcher	11	1-feb-2016	18-dec-2016	EIA University Internal Call 2015-02	4

Project	Position	Duration (Months)	Start Date	End Date	Contract/Call	Dedication (Hours/Week)
Automation of the palm assisted pollination process with multispectral aerial vision technology	Researcher	11	8-feb-2016	18-dec-2016	EIA University Internal Call 2015-02	4
Experimental adaptive identification to improve the enhanced of serial robot with 2 degrees of freedom with flexible articulations supporting dynamics weights.	Researcher	11	8-feb-2016	18-dec-2016	EIA University Internal Call 2015-02	4
Neurocognitive and Neurofunctional Characterization in Eutimic Patients with Bipolar Disorder Type I in treatment using Lithium Carbonate and Valproic Acid: Cross Section Study.	Researcher	10	7-mar-2016	7-mar-2018	EIA University Internal Call 2015-02	4
Intelligent system to identify the differentiated behavior of oil palm crops units from dynamic vegetation indexes	Director	12	30-jan-2017	18-dec-17	EIA University Internal Call 2016-02	8
Integrated fuzzy model for the evaluation of operational risk in the granting of short-term consumer loans to SME's (Small & Medium Enterprises)	Researcher	12	30-jan-2017	18-dec-2017	EIA University Internal Call 2016-02	8
Intelligent forecast mapping system with adaptive vegetation indexes to improve the sustainability of oil palm crops	Director & Researcher	22	1-may-2018	1-mar-2020	EIA University Internal Call 2018-01	8

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Project	Position	Duration (Months)	Start Date	End Date	Contract/Call	Dedication (Hours/Week)
Intelligence system to improve the sustainability of oil palm crops through the construction of forecasting maps integrating dynamical vegetation index from multiespetral aerial views	Director & Researcher	24	1-jun-2018	1-mar-2020	Industry Academia Partnership Program – IAPP 17/18 Contract Royal Academy of Engineering – Newton Fund Program	4
Tool for early and automatic diagnosis of industrial compressors - HDTAC	Researcher	9	11-mar-2019	30-jan-2020	EIA University Internal Call 2018-02	2
Transformation of the consumer in the Colombian energy market towards an answer active demand, through comprehensive management and efficient use of energy as a source of resources distributed in the 2030 horizon	Researcher	36	22-may-2018	22-may-2021	Colciencias Contract 210-2018	6

Should you need further information, please do not hesitate to contact us at your convenience.

Sincerely,

Nathalia Vélez López de Mesa
General Director of Research, Development and Innovation

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