**Raúl Landeo Résumé**

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| **Career Objectives** | To develop a strong research program in Sports, Applied and Clinical Biomechanics in an interdisciplinary setting.  To make a significant contribution in bringing Biomechanics to the coaches, sports science practitioners, physical educators and health care professionals working in sports such as Taekwondo and Football.   |  | | --- | |  | |
| **Qualifications and Awards** | PhD. The University of New South Wales.  Topic: The Impact of Skill Level and the role the Bi-Articular Rectus Femoris Muscle in Modulating Whipping Like Explosive forms of Knee Extension.  Gold NSW Sports Safety Awards, 2003. Biomechanics Lab at the UNSW.  Post Graduate Diploma in Science – Biomechanics  The University of Queensland. 1997.  Recipient of the Faculty of Science Dean’s Commendation Letter for High Achievement. The University of Queensland |
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| **Key Skills** | Twenty years experience as a Lecturer in Biomechanics for Physical Education, Exercise and Sport Science and Biomedical Engineering students for both undergraduate and postgraduate studies.  Formulation of innovative lectures and tutorials contents as well as the formulation of unit contents for basic and advanced biomechanics.  Experience in Biomechanical research, particularly in neuromuscular modeling (EMG driven), inverse dynamics and 3-D and 2-D analysis of movement with elite level athletes.  Experience in the use, maintenance and customization of Biomechanics research equipment such as electromyography recording signal systems, high speed video, 2-D and 3-D systems and force plates systems.   |  | | --- | | Five years experience as National Taekwondo Technical Director and Coach for the Peruvian Elite team  Eighteen years experience coaching in Taekwondo at grass root and elite competition level.  Excellent administrative skills developed as a Technical Director of the Research Unit of the Peruvian Institute of Sport  Well developed people and communications skills |   Eighteen years experience coaching in Taekwondo at grass root and elite competition level. |
| **Experience** | Jul 2003 – Current  **Biomechanics Lecturer**  AUSTRALIAN CATHOLIC UNIVERSITY (ACU)  School of Behavioural and Exercise Science  Sydney, Australia  Responsibilities  To formulate and design the Unit content for subjects ranging from Basic to Advanced Biomechanics units.  The formulation of laboratory experiments and lectures, as well as exam papers and assessments.  To familiarize students with Biomechanical Equipment such as Peak Motus, for video, EMG and force data collection.  To supervise undergraduate students research projects |
|  | February 2001 - Nov 2003  **Lecturer**  THE UNIVERSITY OF NEW SOUTH WALES (UNSW)  School of Safety Science  Responsibilities  To give lectures in specific topics, such as Muscle Mechanics and Muscle Modeling to post graduate masters students from the School of Biomedical Engineering. |
|  | Jan 2001 – Current  **Biomechanics and Kinesiology Lecturer**  AUSTRALIAN COLLEGE OF PHYSICAL EDUCATION (ACPE)  Sydney, Australia.  Responsibilities  To formulate and design the Unit content for Biomechanics.  The design of practical application and experiments to supplement lectures catering for students of physical and Dance education teaching.  To develop an ergonomics of a school setting unit for Diploma of Education students. |
|  | February 1999 - Dec 2002  **Assistant Lecturer**  AUSTRALIAN CATHOLIC UNIVERSITY (ACU)  School of Exercise and Sports Science  Sydney, Australia  Responsibilities  To conduct tutorials and occasional lectures for 1st and 2nd year students. |
|  | August 1998 – Nov 1998  **Biomechanics Casual Lecturer**  Australian Catholic University  School of Exercise Science  North Sydney NSW  Responsibilities  To conduct lectures and tutorials for 1st year students. |
|  | 1995-1998  Various un-related positions in the Hospitality and Retailing Industries (Brisbane and the Gold Coast) and Technical Engineer in the Mining Supplying Industries – DAYCO Australia Pty. Ltd (Sydney). |
|  | 1994 - Emigrated to Australia |
|  | Jan 1990 -Sep 1994  Peruvian Institute of Sports (IPD) (http://www.ipd.gob.pe/)  Lima, Peru  IPD groups together the representative federations and national sporting bodies of Peru. Offers technical and organizational advice and international representation to its members.  **Director of the Biomechanics Research Unit**. Conducted skill analysis and suggested on ways to improve technique execution to: minimize injury risk and to improve performance  **Head Coach of the Taekwondo National Team**. Coaching the elite male and female representatives for International level of competition. (www.fdptkd.com) |
|  | Jan 1991 – Dec 1993  The Andes Institute (http://www.institutodelosandes.com/)  Lima-Peru  The Andes Institute (Instituto de los Andes) is a center for tertiary Education offering Diplomas in the areas Hospitality, Health and Fitness Areas.  **Director of the Welfare, Sports and Recreation Unit.** Coordinated, promoted and administered the students participation in the Institute organised sports and recreation activities. |
| **Personal Details** | 1 Lachlan Pl.  Berowra NSW 2081  (02) 9701 4295 - BH  (02) 9456 3669 – H  0401 268 914 (Mobile)  raul.[landeo@acu.edu.au](mailto:landeo@acu.edu.au) |
| **List of Papers and authorships** |  |
| **Theses** | **PhD Thesis:**  The modulating Impact of Skill Level in Explosive Knee extensions: The Role of Bi-Articular Muscles. The University of New South Wales, School of Safety Science. Supervisor Dr. Andrew McIntosh.  **Post Graduate Diploma in Science Thesis (1997):** Segmental Interaction in Bandal Chagi: A 3-D Analysis. The University of Queensland. Department of Human Movement Studies. Supervised by Dr. Robert Neal. (Awarded High Distinction and recipient of the Dean Commendation Letter for outstanding performance).  **Diploma in Education (1989):** Long Term Planning for Taekwondo Competition: A five year program. (*Planificacion del Entrenamiento de Taekwondo. Programa de Cinco años*). San Martin de Porres University, Lima. Perú. Supervised by Dr. Shigyu Takaki. |
| **Conference Proceedings and Peer Reviewed Journal Articles** | **Bradshow, E. Rice, V.J., Landeo R. (2108).** Impact Monitoring Using Inertial Measurements Units on Different Viscoelastic Sports Surfaces: A Technical Report. Proceedings of the 36th Conference of International Society of Biomechanics in Sports. Auckland, New Zealand, September 10-14, 2018.  **Taylor, P.G., Kwee-Yum Lee, Landeo, R., O’Meara, D.M., Millet, E.L., Moresi, M.P. and Greene, D.A. (2018).** Investigating the Relationship Between Movement Variability, Skill Acquisition and Adaptability. Proceedings of the 36th Conference of International Society of Biomechanics in Sports. Auckland, New Zealand, September 10-14, 2018.  **Landeo, R. (2017)**. Non-Contact Injuries in Taekwondo. *Journal of International Association for Taekwondo Research* 4(1), 11  **Taylor, P.G., Kwee-Yum Lee, Landeo, R., O’Meara, D. M. and Millett, E. (2015).**  Determining optimal trial size using sequential analysis. *Journal of Sports Sciences,33(9)*, 300-308.  **Taylor, P.G., Kwee-Yum Lee, Landeo, R., O’Meara, D. M. and Millett, E. (2015).**  A Surrogate Technique for Investigating Deterministic Dynamics in Discrete Human Movement. *Motor Control,20(4)*, 459-470.  **Taylor, P.G., Landeo, R. and Coogan, J. (2014).** Intraindividual Movement Variability Within the 5m Water Polo Shot. *Journal of Applied Biomechanics 30(3),* 477-482.  **Falco, C. Landeo, R., Menescardi, C., Bermejo, J.L. and Estevan, I. (2012).** Match Analysis in a University Taekwondo Championship. *Advances in Physical Education 2(1),* 28-31*.*  **Landeo, R. (2011).** Foot Placing in Taekwondo Kicking. Proceedings of the III International Symposium for Taekwondo Studies. Gyeongju, Korea. April 29-30, 2011.  **Landeo, R. (2011).** The Role of Pivot Leg Stiffness in Taekwondo Kicking (In press). Proceedings of the III International Symposium for Taekwondo Studies. Gyeongju, Korea. April 29-30, 2011.  **Landeo, R. and Kwee Yum Lee (2011).** Reaction Time in Taekwondo Athletes (In press). Proceedings of the III International Symposium for Taekwondo Studies. Gyeongju, Korea. April 29-30, 2011.  **Landeo, R. and McIntosh A.S. (2011).** The influence of Athletes Body Segment Parameters to Kicking Performance in Taekwondo (Under review). The International Journal of Sports Biomechanics.  **R. Landeo and A.S. McIntosh (2008).** Kinetic And Kinematic Differences Between Target And Free Kicking In Taekwondo (In press). Proceedings of the XXVI Biomechanics Symposia of the International Society of Biomechanics in Sports. Seoul, Korea. July 14-18.  **Landeo Raul (2008).** Timing in a Taekwondo Fast Front Kick and a Dance Layout. Proceedings of the 3rd Australasian Association for Exercise and Sports Science Conference and the 5th Sports Dietitians Australia Update: From Research to Practice (Burnett, A. Eds). AAESS 2008 (pp 180). Melbourne, Victoria. March 27-30.  **Landeo Raul, Sparks Matthew, Langley Michael and Rigney Michael (2008).** Muscle activation evaluated by EMG signals: Target vs. free kicking. Proceedings of the 3rd Australasian Association for Exercise and Sports Science Conference and the 5th Sports Dietitians Australia Update: From Research to Practice (Burnett, A. Eds). AAESS 2008 (pp 100). Melbourne, Victoria. March 27-30.  **Landeo Raul, Taylor Paul, Coogan Jennifer, Greenwood Trevor, Fox Ben (2008).** Short versus Long stretch and shortening cycle characteristics of trained dancers. Proceedings of the 3rd Australasian Association for Exercise and Sports Science Conference and the 5th Sports Dietitians Australia Update: From Research to Practice (Burnett, A. Eds). AAESS 2008 (pp 181). Melbourne, Victoria. March 27-30.  **Millar Kylie, Simpson Meagan, McLarn and Landeo Raul (2008).** The effects of alternative treatments on muscle activation and ROM. Proceedings of the 3rd Australasian Association for Exercise and Sports Science Conference and the 5th Sports Dietitians Australia Update: From Research to Practice (Burnett, A. Eds). AAESS 2008 (pp 203). Melbourne, Victoria. March 27-30.  **R. Landeo and A.S. (2007).** Fast front kick: Gaining insights beyond the data. A.S. McIntosh (Eds.) Proceedings of the XXVth BiomechanicsSymposia of the International Society of Biomechanics of Sports (Chagas Eds.). Ouro Pretto, Brazil. August, 23-27.  **R. Landeo (2004).** Movement signature: The coordination of thigh and leg movement during a fast kicking action. A.S. McIntosh (Eds.) Proceedings of the 2004 Australasian Biomechanics Conference ABC5 Congress (pp. 94-95). Sydney, New South Wales. December 9-10.  **R. Landeo (2002).** The Role of the Rectus Femoris Bi-Articular Muscle in Modulating Explosive Forms of Knee Extension: A Pilot Study. T.M. Bach, D. Orr, R. Baker, W.A. Sparrow (Eds.) Proceedings of the 2002 Australasian Biomechanics Conference ABC4 Congress (pp. 130-131). Melbourne, Victoria. November 28-30.  **R. Landeo, A.S. McIntosh, J. Orchard, D. Rath, T. Savage (2002).** The Kinetics and Kinematics of AFL Kicking. T.M. Bach, D. Orr, R. Baker, W.A. Sparrow (Eds.) Proceedings of the 2002 Australasian Biomechanics Conference ABC4 Congress (pp. 132-133). Melbourne, Victoria. November 28-30.  **Neal, R.J., Burko, D., Sprigings, E., & Landeo, R. (1999)**. Segment interactions during the golf swing: 3 segments in 3-D. W. Herzog & A. Jinha, (Eds.). Proceedings of the 1999 ISB Congress (p. 690). Calgary, Alberta. August 8-13.  **R. Neal, and R. Landeo (1998).**  Expert-Novice differences in fast kicking. Sports Medicine Australia Conference. Sunshine Coast.    **R. Neal, and R. Landeo (1998).** Segmental Interaction in Taekwondo's Bandal Chagi. North American Congress of Biomechanics (NACOB). Waterloo. Canada. |
| **COURSES AND SEMINARS PRESENTED** | Seminar: **Science Applied to Taekwondo**. To be presented during the PAN AM GAMES QUALIFICATION TOURNAMENT. March 25-26. Lima, Peru  Course: **Elite Coaching: a Scientific Approach**. December, 12-16, 2010. Santa Cruz, Bolivia.  NSW State Training. **Seminar on Taekwondo Statistics**. November, 2010  Seminar: **Biomechanics of the Kicking Technique in Taekwondo**. Presented during the 11th Pan American Championship, December 4th to 6th of December, 1998. Lima, Peru. |
| **LANGUAGES** | Spanish and Portuguese |
| **COMPETENT:** | Vicon® Motion Capture Systems  WinAnalyse Caption Systems  Phantom® High Speed Systems  Expert Vision Motion Analysis  Peak Motus for Motion Analysis, Electromyography and Force plates  Video Analysis; Swinger, Silicon Coach.  MSOffice (Word, Excel, Power Point)  WebCT.  AMLAB Systems  Matlab ®  Advanced Calculus and Mathematics  Finite Element, Fourier Transforms, Electronic Filter and Simulation Design  Electronics and Circuits Design |
| **INTERESTS** | TAE KWON DO. Black Belt. 4th. Dan  Certified International Coach Level 3, by the PATU and the WTF  Peruvian Taekwondo Association – President 1991  Director of the National Taekwondo Demonstration Team 1989-90  Taekwondo Peruvian Representative, 1983- 1987.  South-American Champion 1987. Fly weight division  South-American Champion 1985. Fly weight division |
| **REFEREES:** | Dr. Andrew McIntosh  Biomechanics Associate Professor  The University of New South Wales  Kensington  02 9385 5348  Email: a.mcintosh@unsw.edu.au |
|  | Dr. Geraldine Naughton, Professor  Director of the Centre of Physical Activity Across the Lifespan (COPAAL) School of Exercise Science (Vic)  Australian Catholic University  03 99533034  Email: [Geraldine.Naughton@acu.edu.au](mailto:Geraldine.Naughton@acu.edu.au) |