

Tri-Faculty Research New Staff Establishment Scheme

Application Form - 2024

Applications close Friday 13 September 2024 unless funds exhausted prior.

Submission Instructions

Applicants must complete this application form and submit the application as a single PDF attachment (including HOS endorsement and budgets documentation) to Tri-Faculty-Research@csu.edu.au

Application and supporting documentation must be submitted as a single PDF file with the following naming convention: "Surname_New Staff Establishment Scheme" e.g. "White_ New Staff Establishment Scheme"

Applicants must obtain Head of School endorsement prior to submission.

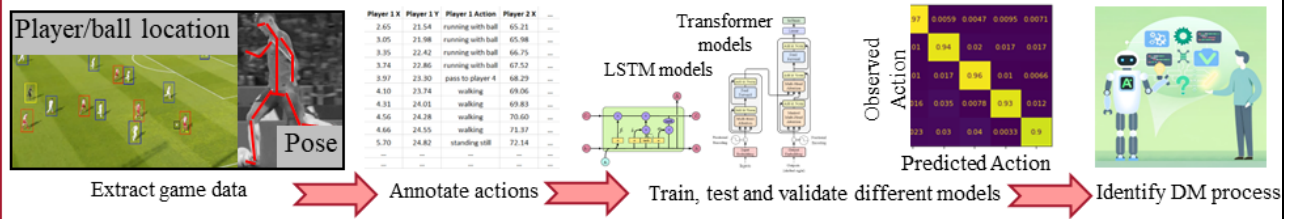
1. Applicant Details

Name (incl. Title)	Dr Job Fransen				
Position (incl. details of joint appointment(s))	Senior Lecturer				
Faculty	Faculty of Science and Health				
School	School of Allied Health, Exercise and Sports Sciences				
Email	jfransen@csu.edu.au				
Phone	0447565009				
Are you Research Active	Yes				
FOR Code/s - List no more than three (3) FOR codes that are aligned with this activity, including a percentage for each. Discuss priority codes with your AHOS Research or ADR if guidance is required.					
FOR	%	FOR	%	FOR	%
4207999	100				

2. Proposal

<p>Proposed use of funds (activities) (max. 250 words) Provide a brief summary of the activity and what support is needed (250 words)</p> <p>Effective team behaviour requires that teammates reciprocally coordinate their actions with respect to one another and changing task demands. Pivotal to this coordination is the ability to effectively decide how and when to act, with robust <i>decision-making</i> (DM) often differentiating experts from novices. This is particularly true in team sports, where every moment-to-moment decision can lead to success or failure. Identifying and understanding the DM processes that underly team sports performance is therefore essential for assessing and enhancing skill development and maximizing team performance.</p> <p>In contrast to practical reasoning or deliberative DM, where individuals evaluate all possibilities to determine optimal behaviour, action decisions during team sports are emergent and highly context-dependent, with teammates spontaneously and continuously co-adapting their actions. It is this dynamic and situational complexity, however, that makes predicting and understanding action decisions during team sport so challenging.</p> <p>Therefore, this proposal, officially endorsed by the GWS giants, aims to use data obtained from a strategic partnership with the GWS Giants Australian Football Club to:</p>
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- 1) Examine the capability of AI models to automate match coding of game involvements (tackles, kicks, goals, clearances, etc)
- 2) Determine the effectiveness of AI techniques for modelling and predicting action decisions of expert and non-expert AFL players based on competitive match data



Modelling Pathway: Extract position, pose and action decision data from game recordings. Train different AI model architectures. Explore whether interpretable AI methods can identify the DM processes of players.

Figure 1 – the modelling pathway proposed in this project from obtaining data from the industry partner (GWS Giants) to identifying key aspects of the decision making process of expert footballers.

3. Proposed Outcomes – complete all sections that apply.

3a. Grant applications

Funding Body	Amount	Submission date
ARC discovery grant (currently in EOI process, project number 0000104517)	Est \$480,000	Currently in EOI submission process
ARC linkage (we are currently in the process of establishing more key industry partners)	Est \$500-600,000	November 2024

3b. Expected Publications

Item examples – journal article, book chapter, other report. Include link where possible.

Detail – include Q ranking (Q1 or Q2)

Item	Detail	Expected submission date
Protocol paper	The protocol paper provides a proof of concept, which will be used to base the protocol on for subsequent grant applications.	9/12/2024

3c. Other outputs proposed

Provide brief details.

Event hosted/training delivered	
HDR support	
Non traditional work	Developing strong, collaborative, and official relationship with the GWS Giants, which is one of only two AFL franchises in NSW
Other: Development of functional prediction models for the GWS giants that can be used for performance analysis.	

3d. External Engagement

Select all that apply.

<input type="checkbox"/> Media coverage (local, national, international)	<input type="checkbox"/> Social media activity	<input type="checkbox"/> Media contributions (opinion pieces, etc.)
<input checked="" type="checkbox"/> Communication with end-users, affected communities	<input type="checkbox"/> Consultations with community groups, professional/practice organisations, government bodies	<input type="checkbox"/> Public lectures, presentations, workshops, seminars, open days, school visits
<input type="checkbox"/> Other:		

4. Research related activities – select all that apply.

<input type="checkbox"/> Data collection	<input type="checkbox"/> Mentoring	<input type="checkbox"/> Literature review
<input checked="" type="checkbox"/> Data analysis	<input checked="" type="checkbox"/> Research assistance	<input type="checkbox"/> Marking / teaching assistance
<input type="checkbox"/> Editing	<input type="checkbox"/> Software purchases	<input checked="" type="checkbox"/> Meetings
<input type="checkbox"/> Equipment purchases	<input type="checkbox"/> Subscription/memberships	<input type="checkbox"/> Training
<input type="checkbox"/> Grant application writing	<input type="checkbox"/> Website maintenance	<input checked="" type="checkbox"/> Travel
<input type="checkbox"/> Other:		

5. Budget

Please provide a detailed budget request and justification for each expense item in the table below. All funding provided must be expended with invoices submitted to your Faculty Operations team by 1st December 2024 as per the funding guidelines. There will be no facility to carry forward funds.

Please ensure your budget is supported by any quotes, which should be included as part of your application, as a single PDF with this application form.

Refer to [CSU Travel](#) for resources to help prepare your budget if applicable. Note that a formal CSU Travel Quote is not required.

Item	Budget	Justification
Research assistance in data cleaning	5000	Research support (other specialised academic activity) at 81\$/hour * 60 hours



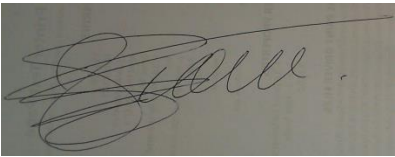
Total	4860	

6. Head of School Endorsement

<p>Comments:</p> <p>Job has an excellent track record at collaborating with industry partners and this is an exciting and novel research activity that has the potential for increased investment opportunities from GWS and other AFL organisations.</p> <p>Job has demonstrated his ability to deliver on similar projects and I am sure this funding will be put to good use to deliver the outcomes indicated.</p> <p>I strongly support and endorse this application.</p>	
Name (inc. Title)	Ian Skinner (A/HOS Research and Graduate Studies) School of Allied Health Exercise and Sports Sciences
Signature 	Date 12/04/2024

7. Declaration - Applicant

In submitting this application, I confirm I have read the Guidelines and conditions of grants under this program, including relevant Charles Sturt policies, and certify that to the best of my knowledge the information provided in this form is correct and discloses a full and accurate picture.

Signature 	Date 4/04/2024
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Attachments

Please check that you have included any attachments (if applicable).
Application documents should be collated into a single pdf file and submitted via email to tri-faculty-research@csu.edu.au