

## W26: Physics and Mechanics of Rocks: A Practical Approach

<b>Coordinator(s)</b>	Manika Prasad
<b>Date(s)</b>	Fri, Sep 06
<b>Time</b>	08:45 - 16:45
<b>Location</b>	Crown Perth
<b>Summary</b>	During this one-day short course, I will provide the earth scientist and engineer with the fundamental basis of rock physics to describe the physical processes that govern the response of rocks to external stresses that are essential for reservoir characterization. The course will also offer practical guidance to help better analyze existing data.

<b>Schedule*</b>	<p>The course is organized into two main sections: Section I. Rock Physics Fundamentals (introductory section) and II. Advanced Topics in Rock Physics (application section):</p> <ul style="list-style-type: none"><li>I. <b>Rock physics fundamentals:</b> In this section, I will<ul style="list-style-type: none"><li>a. Review fundamental principles underlying rock physics, and rock properties;</li><li>b. Investigate the effects of fluids on rock properties;</li><li>c. Derive basic rock physics correlations and explain why and how they work</li><li>d. Review rock properties that can be mapped with remote sensing</li></ul></li> <li>II. <b>Advanced Topics in Rock Physics:</b> In this section, the student is introduced to<ul style="list-style-type: none"><li>a. Poroelasticity</li><li>b. Attenuation and dispersion,</li><li>c. Geomechanics</li><li>d. Complex electrical conductivity and permeability</li><li>e. Investigate the causes for complications and deviations from basic correlations.</li><li>f. Examine existing empirical and theoretical models,</li><li>g. Discuss selected case studies in rock physics.</li></ul></li></ul>
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### Terms and conditions

\* Schedule subject to change

Workshops will proceed only if minimum numbers are reached, should a workshop be cancelled that you have paid and registered for, you will be notified and refunded the full amount. Should you wish to cancel a workshop, standard registration cancellation policy applies. Please refer to the AEGC conference website for registration cancellation policy and for further details on registration information <https://2019.aegc.com.au/>