

کنترل غیر خطی

موضوعات پروژه درسی



هدف از این پروژه آشنایی دانشجویان با موضوعات فراتر از درس مرتبط با کنترل غیرخطی است. بدین منظور لازم است هر یک از دانشجویان یکی از موضوعهای زیر را بر حسب علاقه‌ی خود انتخاب نمایند. تمامی دانشجویان می‌بایست حداکثر تا تاریخ یکشنبه ۹۹/۰۸/۱۱ موضوع خود را انتخاب کنند. بدین منظور موضوع انتخابی خود را در تالار گفتگوی در نظر گرفته شده در سامانه درس اعلام نمایید. این سامانه از روز شنبه ۹۹/۰۸/۱۰ ساعت ۱۴:۰۰ آماده دریافت موضوعات درخواستی شما است. هر موضوع تنها به یک نفر تعلق خواهد گرفت و اولویت با شخصی است که درخواست خود را زودتر اعلام نماید. در صورتی که موضوع دیگری را در نظر دارید **عنوان و چکیده موضوع پیشنهادی خود را به همراه سه مقاله مرتبط تا تاریخ ۹۹/۰۸/۱۱ به آدرس ایمیل درس ارسال نمایید.**

برای هر پروژه لازم است علاوه بر مراجع داده شده مقالات معتبر دیگری هم (حداقل ۵ مقاله) مطالعه شده و گزارش اول پروژه که تعریف دقیق پروژه و انجام مراحل اولیه مطالعاتی آن است در تاریخ یکشنبه ۹۹/۰۹/۰۲ از طریق سامانه تحویل داده شود. در جستجوی مقالات لازم است یک سیستم فیزیکی یا کاربرد عملی بیابید که آن موضوع بر روی آن پیاده‌سازی یا در اثبات پایداری کنترل‌کننده از آن استفاده شده باشد و این شبیه‌سازی یا اثبات را کاملاً درک نموده و شبیه‌سازی نمایید. در انتهای پروژه لازم است یک گزارش کامل از دریافت‌ها، شبیه‌سازی‌ها و نتیجه‌گیری موضوع در **فرمت فایل پیوست** و همچنین یک ارائه شفاهی به صورت PowerPoint تهیه نمایید. تاریخ تحویل گزارش نهایی پروژه و ارائه شفاهی آن چند روز بعد از پایان امتحانات خواهد بود که بعداً با هماهنگی شما تعیین می‌شود.

برای پرسش از تدریس یاران می‌توانید، علاوه بر گروه whatsapp درس، از ایمیل زیر استفاده کنید.

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Project Topics

Nonlinear System Control

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3. Passivity Based Control [9-10]
4. Backstepping Sliding Mode Control [11-13]
5. Nonlinear H_∞ Control [14-16]
6. Nonlinear Optimal Control [17-19]
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8. Lyapunov-based Model Predictive Control of Nonlinear systems [23-25]
9. Adaptive Robust Backstepping Control [26-28]
10. Nonlinear Systems Stabilization via Fuzzy Control [29-31]
11. Variable Structure Control of uncertain Large-Scale Systems [32-34]
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Nonlinear Observer

13. High Gain Observer [38-39]
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