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Category:Bike

Tour 3 Documentation System < Mathematical formula

Subcategories

This category has the following 2 subcategories, out of 2 total.

B

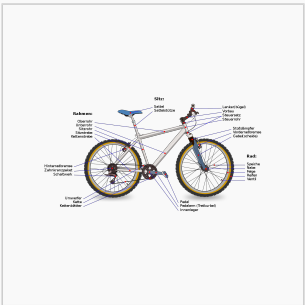
- [Bike accessories](#) (2 F)
- [Bike parts](#) (4 F)

Media in category "Bike"

The following 8 files are in this category, out of 8 total.



[E-bike.png](#) 640 × 391;
264 KB



[Fahrrad Diagramm.png](#)
1,280 × 714; 254 KB



[Fahrrad3.jpg](#) 640 ×
427; 41 KB



[icon-bike-sprint.png](#)
640 × 407; 43 KB



[Kinderfahrrad.jpg](#) 640
× 547; 72 KB



[Kinderfahrrad2.png](#)
640 × 533; 327 KB



[racing-bicycle.png](#)
1,280 × 785; 423 KB



[Vintage Fahrrad.png](#)
1,280 × 901; 380 KB

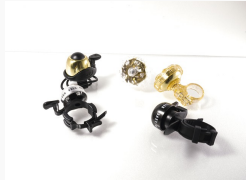
Category: Bike accessories

Media in category "Bike accessories"

The following 2 files are in this category, out of 2 total.



[Fahrradhelm.jpg](#)
1,280 × 855; 198 KB



[Fahrradklingel.jpg](#) 640
× 480; 41 KB

Category: Bike parts

Media in category "Bike parts"

The following 4 files are in this category, out of 4 total.



[bike-brake.jpg](#) 853 ×
1,280; 244 KB



[Fahrradkette.png](#) 640
× 360; 133 KB



[Fahrradsattel.png](#) 640
× 413; 160 KB



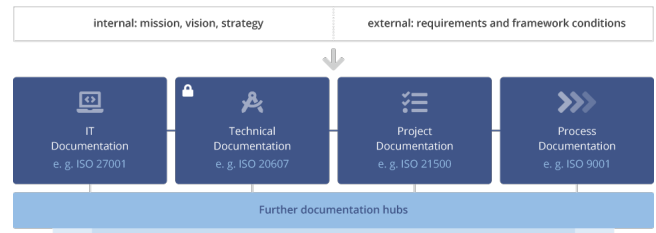
[Scheibenbremse.jpg](#)
640 × 480; 92 KB

Documentation System

Tour 3 [Documentation System](#)

next: [Customer documentation](#)

A **documentation system** supports the company in archiving documents. These systems are of outstanding importance for the company to be able to reproduce processes, decisions and agreements.



Documentation systems are used in project documentation, [technical documentation](#) or IT documentation. In order for them to fulfill their purpose, it is necessary to be able to use them to quickly collect, categorize and retrieve information.

Documentation in a wiki

Wikis were developed to centrally collect and organize the knowledge of different experts. They are therefore ideal documentation systems and have long since become the standard documentation system, not least in IT.

- *Collaboration without prior knowledge:* With the visual editor, images can be quickly integrated into an article using "drag & drop".
- *Office documents:* Documents in other formats (Office, PDF etc.) can be attached to an article just as quickly.
- *Creation of structured data:* The documentation can be enriched with structured data (attributes) that can be processed inside and outside the system. (Semantic MediaWiki)
- *Page versioning:* The traceability and reproducibility of all changes in the documentation enable the management of legally required information and, if necessary, safeguard against liability.

Example pages

Customer documentation

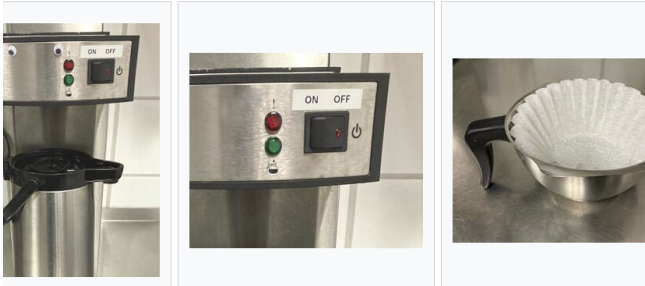
	Contact since	2017	Status
ner	Account Manager	Doe, John	Technical Contact

Company/Development System (Contract Type: Subscription)
Company/Documentation (Contract Type: Subscription)
Company/Production System (Contract Type: Subscription)

Step-by-step instructions

coffee

er without immediately brewing coffee. Flooding can occur if the tank is filled again afterwards!



IT documentation

rowser's JavaScript console, enter `person` into it, and press `Enter / Return`. You should get a r
lines:

t]

you've just created your first object. Job done! But this is an empty object, so we can't really do
JavaScript object in our file to look like this:

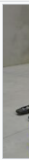
```
{
  'Smith'],
le',
['music', 'skiing'],
on() {
s.name[0] + ' ' + this.name[1] +
this.age + ' years old. He likes ' +
```

Operating instructions

metal tines (fork) that can be pushed under the pallet. In front of the tines there are small, downwardly extendable
er side there are one or two steerable rollers. With the load and castors, the lifting tines can be adjusted parallel to
tth a hydraulic lifting cylinder and a linkage. This way, the pallet can be raised for shipping. The handle is used for
nd in non-powered devices as a lever for a hydraulic pump, which feeds the lifting cylinder. On the handle or near the
rating option for the hydraulic valve (lifting / driving / lowering). Electric pallet trucks follow the operator by means of
files.

ions

ual UVV test (according to the guidelines of the employers' liability insurance association) is mandatory for an
c.
tpetence (driving license) for driving electric pallet trucks is not required if the pallet truck is controlled by a traveling
pedestrian. In this case, according to the German Employers' Liability Insurance Ordinance § 7 (2) BGV D27,
driver in the handling of the lift truck is sufficient. The assignment of the driver does not have to be in writing in this



Electi



Mathematical formula

response is going to be the derivative of this:

$$\frac{di_{o\mu}}{dt} = 0 + \frac{1}{2}e^{-t}(\cos t + \sin t) - \frac{1}{2}e^{-t}(-\sin t + \cos t)$$

$$e^{-t}(\cos t + \sin t + \sin t - \cos t) = e^{-t} \sin t: I_s = 1 + \cos t$$

$$\int_0^t i_{o\delta}(t - \tau) I_s(\tau) d\tau + C_1$$

$$\int_0^t e^{-(t-\tau)} \sin(t - \tau)(1 + \cos \tau) d\tau + C_1$$

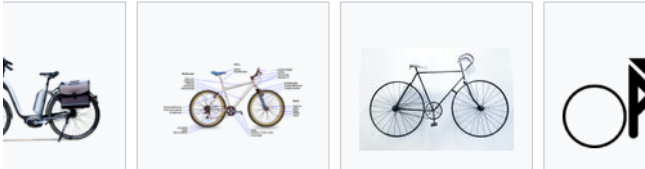
$$\frac{\cos t}{5} + \frac{2 \sin t}{5} - \frac{7e^{-t} \cos t}{10} - \frac{11e^{-t} \sin t}{10} + \frac{1}{2} + C_1$$

Categorized product images

Accessories (2 F)
Bikes (4 F)

in category "Bike"

Showing 8 files are in this category, out of 8 total.



Tour 3 Documentation System

next: [Customer documentation](#)

File:E-bike.png

- [File](#)
- [File history](#)
- [File usage](#)



No higher resolution available.

[E-bike.png](#) (640 × 391 pixels, file size: 264 KB, MIME type: image/png)

File history

Click on a date/time to view the file as it appeared at that time.

	Date/Time	Thumbnail	Dimensions	User	Comment
current	15:36, 1 December 2021		640 × 391 (264 KB)	Demo writer (talk contribs)	

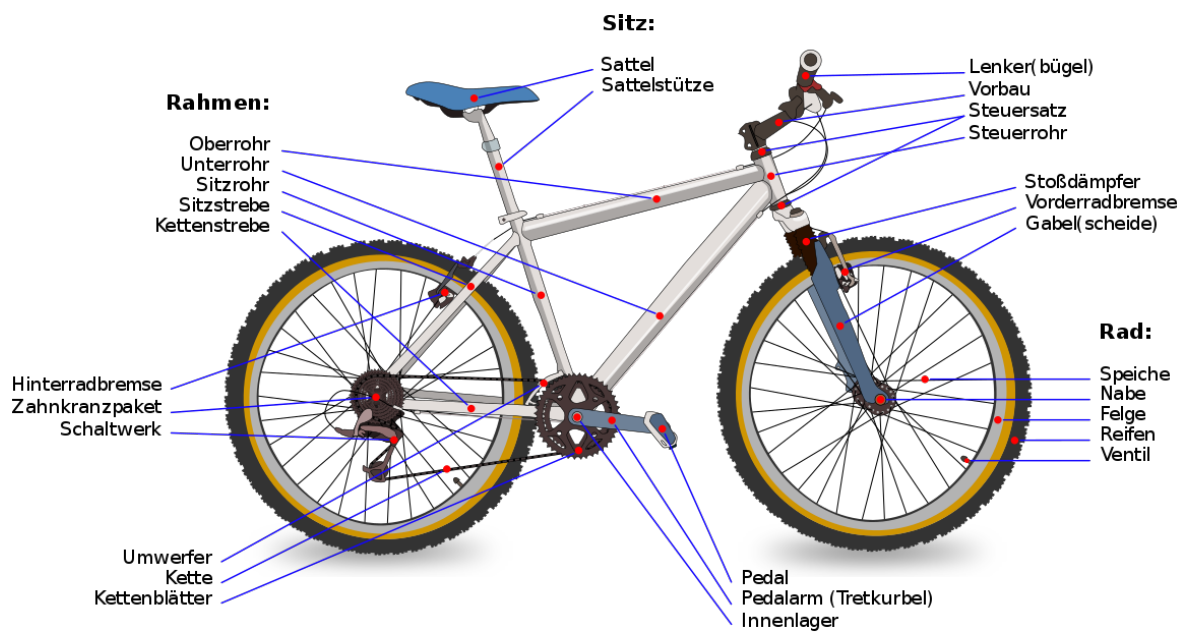
You cannot overwrite this file.

File usage

There are no pages that use this file.

File:Fahrrad Diagramm.png

- [File](#)
- [File history](#)
- [File usage](#)
- [Metadata](#)




Size of this preview: 800 × 446 pixels. Other resolution: 1,280 × 714 pixels.

[Original file](#) (1,280 × 714 pixels, file size: 254 KB, MIME type: image/png)

File history

Click on a date/time to view the file as it appeared at that time.

	Date/Time	Thumbnail	Dimensions	User	Comment
current	15:36, 1 December 2021		1,280 × 714 (254 KB)	Demo writer (talk contribs)	

You cannot overwrite this file.

File usage

There are no pages that use this file.

Metadata

This file contains additional information, probably added from the digital camera or scanner used to create or digitize it.

If the file has been modified from its original state, some details may not fully reflect the modified file.

File change date and time 20:08, 19 March 2018

File:Fahrrad3.jpg

- [File](#)
- [File history](#)
- [File usage](#)



No higher resolution available.

[Fahrrad3.jpg](#) (640 × 427 pixels, file size: 41 KB, MIME type: image/jpeg)

File history

Click on a date/time to view the file as it appeared at that time.

	Date/Time	Thumbnail	Dimensions	User	Comment
current	15:36, 1 December 2021		640 × 427 (41 KB)	Demo writer (talk contribs)	

You cannot overwrite this file.

File usage

There are no pages that use this file.

File:Kinderfahrrad.jpg

- [File](#)
- [File history](#)
- [File usage](#)
- [Metadata](#)



No higher resolution available.

[Kinderfahrrad.jpg](#) (640 × 547 pixels, file size: 72 KB, MIME type: image/jpeg)

File history

Click on a date/time to view the file as it appeared at that time.

	Date/Time	Thumbnail	Dimensions	User	Comment
current	15:36, 1 December 2021		640 × 547 (72 KB)	Demo writer (talk contribs)	

You cannot overwrite this file.

File usage

There are no pages that use this file.

Metadata

This file contains additional information, probably added from the digital camera or scanner used to create or digitize it.

If the file has been modified from its original state, some details may not fully reflect the modified file.

Camera manufacturer	Canon
Camera model	Canon EOS 60D
Exposure time	1/250 sec (0.004)
F Number	f/7.1
ISO speed rating	100
Date and time of data generation	15:12, 27 November 2014
Lens focal length	28 mm
Flash	Flash did not fire, compulsory flash suppression

File:Kinderfahrrad2.png

- [File](#)
- [File history](#)
- [File usage](#)



No higher resolution available.

[Kinderfahrrad2.png](#) (640 × 533 pixels, file size: 327 KB, MIME type: image/png)

File history

Click on a date/time to view the file as it appeared at that time.

	Date/Time	Thumbnail	Dimensions	User	Comment
current	15:36, 1 December 2021		640 × 533 (327 KB)	Demo writer (talk contribs)	

You cannot overwrite this file.

File usage

There are no pages that use this file.

File:Vintage Fahrrad.png

- [File](#)
- [File history](#)
- [File usage](#)



Size of this preview: [800 × 563 pixels](#). Other resolution: [1,280 × 901 pixels](#).

[Original file](#) (1,280 × 901 pixels, file size: 380 KB, MIME type: image/png)

File history

Click on a date/time to view the file as it appeared at that time.

	Date/Time	Thumbnail	Dimensions	User	Comment
current	15:36, 1 December 2021		1,280 × 901 (380 KB)	Demo writer (talk contribs)	

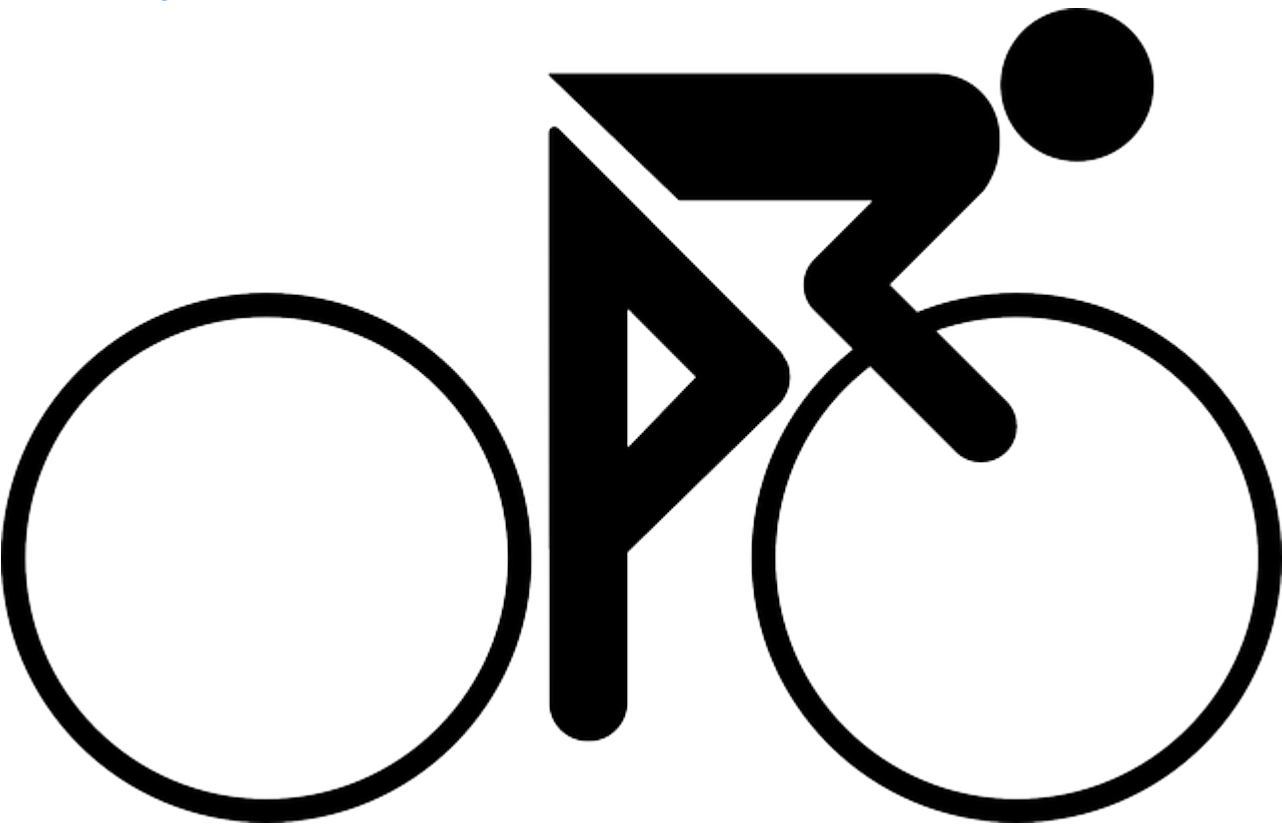
You cannot overwrite this file.

File usage

There are no pages that use this file.

File:icon-bike-sprint.png

- [File](#)
- [File history](#)
- [File usage](#)



No higher resolution available.

[icon-bike-sprint.png](#) (640 × 407 pixels, file size: 43 KB, MIME type: image/png)

File history

Click on a date/time to view the file as it appeared at that time.

	Date/Time	Thumbnail	Dimensions	User	Comment
current	15:36, 1 December 2021		640 × 407 (43 KB)	Demo writer (talk contribs)	

You cannot overwrite this file.

File usage

There are no pages that use this file.

File:racing-bicycle.png

- [File](#)
- [File history](#)
- [File usage](#)



Size of this preview: [800 × 491 pixels](#). Other resolution: [1,280 × 785 pixels](#).

[Original file](#) (1,280 × 785 pixels, file size: 423 KB, MIME type: image/png)

File history

Click on a date/time to view the file as it appeared at that time.

	Date/Time	Thumbnail	Dimensions	User	Comment
current	15:36, 1 December 2021		1,280 × 785 (423 KB)	Demo writer (talk contribs)	

You cannot overwrite this file.

File usage

There are no pages that use this file.

Impulse response

Tour 3 [Documentation System](#) < [Operating instructions](#)

next: [Categorized product images](#)

So far circuits have been driven by a DC source, an AC source and an exponential source. If we can find the current of a circuit generated by a Dirac delta function or impulse voltage source δ , then the convolution integral can be used to find the current to any given voltage source!

Example Impulse Response

The current is found by taking the derivative of the current found due to a DC voltage source! Say the goal is to find the δ current of a series LR circuit ... so that in the future the convolution integral can be used to find the current given any arbitrary source.

Choose a DC source of 1 volt (the real V_s then can scale off this). The particular homogeneous solution (steady state) is 0. The homogeneous solution to the non-homogeneous equation has the form:

Assume the current initially in the inductor is zero. The initial voltage is going to be 1 and is going to be across the inductor (since no current is flowing):

$$v(t) = L \frac{di(t)}{dt}; v(0) = 1 = L * \left(-\frac{AR}{L}\right);$$

If the current in the inductor is initially zero, then:

Which implies that:

So the response to a DC voltage source turning on at $t=0$ to one volt (called the unit response μ) is:

$$i_{\mu}(t) = \frac{1}{R} \left(1 - e^{-\frac{t}{\frac{L}{R}}}\right)$$

Taking the derivative of this, get the impulse (δ) current is:

Now the current due to any arbitrary $V_s(t)$ can be found using the convolution integral:

Don't think i_{δ} as current. It is really $\frac{d \text{ current}}{dt} \frac{1 \text{ volt}}{1 \text{ volt}} \cdot V_s(\tau)$ turns into a multiplier.

LRC Example

Find the time domain expression for i_o given that $I_s = \cos(t + \pi/2)\mu(t)$ amp.

Earlier the step response for this problem was found:

The impulse response is going to be the derivative of this:

$$i_o(t) = \int_0^t i_{os}(t - \tau) I_s(\tau) d\tau + C_1$$

The Mupad code to solve the integral (substituting x for τ) is:

```
f := exp(-(t-x)) * sin(t-x) * (1 + cos(x));  
S := int(f, x = 0..t)
```

Finding the integration constant

This implies: