Page(s)	Suggested changes FROM → TO	Remarks
5, 8, 48, ...	**skeletal-muscular** system → **musculoskeletal** system	
6	**Euclidian** distance → **Euclidean** distance	
7	multiple **single** classification → multiple **signal** classification	
12	it received lot of attention → it received **a** lot of attention	
12	Li and Zhou (**2016a**) & Li and Zhou (**2016b**) → Li and Zhou (**2016**)	There is not 2016a and 2016b in the bibliography.
12	**PNN** → ?	PNN has not been defined before.
13	to **learned** → to **learn**	
13	TQWT is utilized to classify **ECG** signals → TQWT is utilized to classify **EEG** signals	Based on the reference title in the bibliography.
13	The normal **PPG** → The normal **PCG**	We are in PCG section.
17	**heat** stress assessment → **heart** stress assessment	
17	**heat** stress level → **heart** stress level	
17	after simulated **heat**-stress induction → after simulated **heart**-stress induction	
17	after the simulated **heat**-stress inductions → after the simulated **heart**-stress inductions	
18, 81	**corneal**-retinal → **corneo**-retinal	
18	**electrooculogram** (EOG) is a technique → **electrooculography** (EOG) is a technique	Electrooculogram is a signal not a technique.
18	**electrogastrogram** (EGG) is a technique → **electrogastrography** (EGG) is a technique	
25	**sound-myogram**	Is sound-myogram the same as 'sonomyogram'?
29	were then **was** utilized → were then utilized	
29	on the **skull** perimeter → on the **scalp** perimeter	
29	When referring to Fig 2.2 the numbers 10 and 20 percentages and relative distances have been mentioned and it is expected to see these numbers in the referred figure, while there is no 10 or 20 on the Fig. 2.2.	
29	typical adult **skull** → typical adult **scalp**	
30	**A2 → A1**	On Fig. 2.2, the left A2 should change to A1.
30	with gains approaching **106** is necessary	The number 106 is a bit strange, just wanted to make sure that it is correct.
31	The values on the left column for computing the smallest amplitude of the A/D are not correct. First based on the formula and the unit of the computed smallest amplitude, the range unit should be mV, so 10 **V** → 10 **mV**. Then, 0.3 has been computed based on considering the range to be 10, while the range (max-min) is 20, not 10. So based on the given formula the smallest amplitude would be **0.6**, and not **0.3**.	
31	imprecise (the definitions → imprecise (the definitions …**)**	There is no right parenthesis for the left parenthesis.
37	The title of the corresponding reference for SSVEP-based BCI, i.e., "**Zhang, Guan, & Wang, 2008**", implies more to P300-based BCIs rather than SSVEP-based BCIs.	
38	Signal **procesing** → Signal **processing**	Inside Fig. 2.5.
46	across **participates** → across **participants**	
50	higher noise extortion → ?	Not clear.
50	cutoff or cut-off?	Consistency throughout the book.
50	**highest** frequency cut-off → **higher** frequency cut-off	There are only two cut-off freq. in a BPF, so comparative adj. should be used and not superlative one.
50	**frequency cut-off → cut-off frequency**	
51	**[1, 2]** → ?	Is it referencing? It is not consistent.
51	because temporal superimposition → because **of** temporal superimposition	
52	In one study, the values ...	There is no reference for this paragraph.
53	its rate **raises** as → its rate **rises** as	

57	such as gripping, **feeling**, and waving among other hand-related movements	Feeling is not a hand-related movement, I think the author meant **lifting** instead of feeling.
62	(W**I**lson → (W**i**lson	
62	by both the American Heart Association (**EC11a, 1984**) and the Association for the Advancement of Medical Instrumentation (**Bailey, Berson, & Garson, 1990**).	The first and second references should change their places with each other.
63	(Berbari, Lazzara, Samet, & Scherlag, 1973; **Berbari, Lazzara, & Scherlag**)	Bringing names of the authors in the main text after the reference itself is useless.
64	could be because the Wolff-Parkinson-White → could be because **of** the Wolff-Parkinson-White	
64	**drooping → droping**	
65, 67	**PCV → PVC**	
65	Arrhythmia **Databas**, → Arrhythmia **Database**,	
69	The reference '**Subasi, 2013**' at the bottom of the left column is about **EMG** signal processing (deduced from the title), not **ECG**.	
69	Baim et al. (1986**))** employed → Baim et al. (1986**)** employed	One of the right parentheses after the year is extra
69	healthy **patients** from **subjects** with CHF → healthy **subjects** from **patients** with CHF	
70	of approximately 0.1–Hz. → of approximately 0.1–**?** Hz	The higher frequency of the bandwidth after – has been removed
71	websit**e:h**ttps → websit**e: h**ttps	space after : was added
71	cod**ew**as → cod**e w**as	
76	semilunar **valve closures** happen → semilunar **valves closure** happen	
76	the systemic arterial resistance → the systemic **aortic** arterial resistance	
79	There is a line break after parenthesis in **devices (Khan,**. It means that there is an undesired space after **(**, which leads to new line break.	
79	frequency range 600–700 **nm**,	nm is not a correct unit for frequency range.
79	many **sportsman** → many **sportsmen**	
80	tw**o -e**lectrode → tw**o-e**lectrode	There is extra space before -
84	The references starting from **Kotas** and **Kondraske** are not in ascending alphabetical order, like the other ones. They should change their places.	
85	The reference starting with **Rechtschaffen, A., ...** has not been placed in an alphabetically correct order.	
86	The reference starting by **van Erp, J, ...** has not been placed in the correct alphabetical order.	
86	**Multichanned** EEG brain activity ... with nonnegative **matric** factorization support → **Multichannel** EEG brain activity ... with nonnegative **matrix** factorization support	
86	of the **falvanometric** curves → of the **galvanometric** curves	
89	periodic (or of **limited** length) → periodic (or of **unlimited** length)	
89	the signal is **infinite** or simply a portion → the signal is **finite** or simply a portion	
91	**n → m**	In Eq. 3.7 the counter variable of the summation should change to m.
91	**T → T_s**	In Eq. 3.8, the rightmost T should change to T_s.
91	all spectral **analyzes** built on → all spectral **analyses** built on	
91	direct application of Eq. **(3.6) or (3.9)**	The hyperlink to 3.9 has been unified with that of 3.6, i.e., there is no hyperlink to 3.9, also the word **or** has been linked to the equation mistakenly.
97	FIG. 3.4 Drawing of stenosis PCG signal → FIG. 3.4 Drawing of **aortic** stenosis PCG signal	
99, 100, 101, 102, & 104	**F → f**	In Examples 3.6, 3.7, 3.8, 3.9, & 3.10, the second output of the function **periodogram**, i.e., **F**, is itself the frequency vector, and there is no need

		to calculate it again as **f**. They are the same.
99 & 100	**length(Normal_Eyes_Open(:,1)) → L**	In Example 3.6, 3.7, the value **length(Normal_Eyes_Open(:,1))** has been used twice as the input argument of the function **periodogram**, whereas it this value has been already assigned to the variable **L**, so they can be replaced by **L**
110	**a(k) → a_k**	In Eqs. 3.19 & 3.20 (and also 3.22 & 3.23), the identical model coefficients have been represented with different notations, i.e., the same notation should be used for a(k) and a_k.
110	$-\sum_{k=1}^{q} \rightarrow \sum_{k=0}^{q}$	In Eq. 3.21, there is no minus sign before the summation, also the summation counter starts from zero not one.
110	$\sum_{k=1}^{q} \rightarrow \sum_{k=0}^{q}$	In Eq. 3.22, for the second summation (MA), the counter starts from zero not one.
111	**a(1), a[1] → a_1**	In Eq. 3.14, the paragraph after that, and Eq. 3.25, the AR coefficients notation has been with parenthesis, square bracket, and subindex, respectively, which is inconsistent notation, i.e., a(1), a[1], a_1.
112	From Eq. (**3.7**), the AR parameter → From Eq. (**3.28**), the AR parameter	
112, 132, 193, & 194	**Proakis & Manolakis, 2007**	The reference **Proakis & Manolakis, 2007** has not been placed in the correct alphabetically order in the bibliography.
117, & 118	**EEG signal using pmusic.**	In Example 3.19, in the comments **EEG signal using pmusic.**, while the **pmusic** has not been used.
126	**l**	In Eq. 3.42, **l** at the end of the second row should move to the beginning of the next line to avoid being confusing.
126	where Eq. (**3.41**) has been employed → where Eq. (**3.40**) has been employed	
128, 130, 140, ...	The following paragraphs start with an indentation, which should be removed, because these paragraphs are not new paragraphs, and they continue the precedent unfinished sentence. The paragraph after: Eqs. **3.52, 3.54, 3.55, 3.56, 3.58, 3.60, 3.61, 3.62, 3.69, 3.70, 3.71, 3.76, 3.77, 3.79, 3.84, 3.85, 3.86, 3.89, 3.92, 3.94, 3.95, 3.99, 3.101, 3.103, 3.106, 4.9, 4.10, 4.11, 5.8, 5.9, 5.10**.	
130	***A(f)***	The font of the A(f) in the paragraph before Eq. 3.54 is not consistent with the one used in the Eq. 3.54.
130	$\boldsymbol{\sigma v^2 \rightarrow \sigma_v^2}$	**v** in the symbol of the noise power has not been subindexed, it need to be subindexed. This happens in the main text and Eqs. 3.55, 3.60, 3.61, 3.62
130	**# → H**	In the paragraph after Eq. 3.55, personally, I would rather to introduce the Hermitian transpose, and represent it with H, instead of #, and not mentioning the Hermitian transpose.
130	**wi → w_i**	In Eq. 3.57, **i** need to subindexed of **w**, not in the same level.
130	$\frac{1}{N} \rightarrow \frac{1}{N-k}$	In Eq. 3.58, the range of summation is on N-k samples, so the denominator of

		the fraction before the summation should not be N-k, instead of N?
130	$\hat{R}(\boldsymbol{k}) \rightarrow \hat{R}$	In Eq. 3.59, the left-hand side should be the estimated autocorrelation matrix, and not lags.
130	$SPSa \rightarrow SPS^{\#}a$	In Eq. 3.60, the # superindex after the second S has been removed mistakenly.
130	$\mathbf{a} \rightarrow \boldsymbol{a}$	The **a** (eigenvector) font in the Eq. 3.60 and in the two next lines of the main text are not consistent.
130	$\boldsymbol{k} \rightarrow \boldsymbol{K}$	In Eq. 3.62, **k** is small letter while in the text after it has been introduced to be capital **K**. They need to be consistent.
130	$\boldsymbol{a}$ or a?	Notation of the eigenvector **a** is confusing, sometimes it has been used in bold face font, which is confusing. Not clear whether the eigenvector **a** is a vector or matrix.
130	$S^{\#}a = 0 \rightarrow S^{\#}a = \mathbf{0}$	In the paragraph before the Eq. 3.61, the result of the $S^{\#}a$ is a vector not scalar, so the zero should be in bold face.
130	After Eq. 3.60, the elements of **a** (eigenvector) represent the same notation as the eigen-filter coefficients in Eq. 3.54, are they equal?	
131	$A_i(f)$	A(f) has been defined in Eq. 3.54, but $A_i(f)$ has not been defined in Eq. 3.63. What is the role of subindex i?
134	also termed as wavelet **analyzes** → also termed as wavelet **analyses**	
135	W → w	In Eq. 3.66, there is no need to put the square bracket inside the summation.
135	In Example 3.28, the length of the window (section) is equal to the length of the signal, so there is actually no windowing phase in the process, and that is why there is no time-dependent change in the resulted TF representations in Fig. 3.28, i.e., all frequency components remain unchanged during the time interval. The window size should change to be a fraction of the signal size.	
136	Estimate the spectrum of the **chirp** using → Why chirp?	
137	$x^*\left(\boldsymbol{\tau} - \frac{\tau}{2}\right) \rightarrow x^*\left(\boldsymbol{t} - \frac{\tau}{2}\right)$	In Eq. 3.69, and the line after, the input argument of the x* need to change.
137	frequency-smoothing window **h(t)** → frequency-smoothing window **h(f)**	
137	$g \rightarrow h$ $h \rightarrow g$	In the main text g is introduced as time-smoothing and h is frequency-smoothing, while in the Eq. 3.70 g and h have been used as frequency/time-smoothing, respectively, which is not consistent with the main text.
137	cross-product**s(**Sornmo → cross-product**s (**Sornmo	A space is needed after products.
138	mesh(abs(tfr)) → mesh(**t, f,** abs(tfr))	
138	xlabel('Time(**msec**)') → xlabel('Time(**sec**)')	
138, 139, & 141	In Figs. 3.29, 3.30, 3.31, & 3.32, the frequency range [0, 0.5], and the time range [0, 1000] does not seem to be correct. Also, the shown 3D view of these figures are more confusing than the normal 2D view.	
140	"Likewise, the time marginal condition in **Eq. (3.41)** stays valid"	Eq. (3.41) does not seem to be the correct reference in the text, i.e., being time marginal condition.
141	**Wigner Ville → Choi-Williams**	
142	"we must **sample the data at twice the Nyquist frequency** if the real signal is used"	Is this statement correct? Sampling at twice the Nyquist?
142	**evenly spaced values → even-valued spaces**	

142	$^{*} \rightarrow *$	In Eq. 3.79, the * mark is superindexed, while as a convolution operation it should be at the same level of + and = operations, not upper.
142	Main text: $\frac{\tau}{2} \rightarrow \tau/2$ Equation: $\pi n/2 \rightarrow \frac{\pi n}{2}$	Consider the way of displaying the fraction in the main text, e.g., sentence after Eq. 3.69 (i.e., $\frac{\tau}{2}$), and in the equation, e.g. Eq. 3.80 (i.e., $\pi n/2$). Usually, the displaying the fraction should be the other way around.
144	ECGN(:,1) → t	The second input argument of **helperCWTTimeFreqPlot** should be time, i.e., t, not signal, i.e., ECGN(:,1). Moreover all t starts from zero, while this is not the case in TF representations of Fig. 3.33.
145	$\omega(s,\tau) \rightarrow \omega_{s,\tau}$	In Eq. 3.84, and 3.91, the inconsistent notation (parenthesis and subindex) has been used for parameters of ω, i.e., $\omega(s,\tau)$, and $\omega_{j,k}$.
164	Acharya, 201**7;Z**hang, → Acharya, 201**7; Z**hang,	A space after the semicolon is required.
164	Dong, et al., 201**5 ;** Zhang → Dong, et al., 201**5;** Zhang	No need to the space before the semicolon.
166	$\boldsymbol{\beta}$ has not been defined in Eq. 3.93.	
171	i**f**$\forall x \rightarrow$ i**f** $\forall x$	In Eq. 3.97, a space is needed after the **if**
171	**,** → **.**	In Eq. 3.99 & 3.100, the inner product has been represented by comma, whereas it is usually represented by dot.
171	$\boldsymbol{\varphi_1} \rightarrow \boldsymbol{\phi}$	In the sentence before Eq. 3.96, the **empirical scaling function** has been represented by $\boldsymbol{\phi}$, while in the Eq. 3.96, it is defined by $\boldsymbol{\varphi_1}$.
171	In the sentence before Eq. 3.99, it has been mentioned "inner product with the **empirical scaling function**", i.e., $\boldsymbol{\phi}$, while in the Eq. 3.99, the **empirical wavelets**, i.e., $\boldsymbol{\Psi}$ has been employed instead, which is not consistent.	
176, 181, & 185	pg. 176: **In practice,** pg. 181: **Because the** pg. 185: **Steps 4–6**	The beginning of the paragraphs starting with the mentioned statements should be indented.
180	"Their results confirmed that **noise** could support data analysis in the EMD."	**noise** or **repetition of trials**? In case of only one trial, noise cannot help, while when there is ensemble of trials, noise or noise-free case will help to improve the results.
181	might **achive** a smaller → might **achieve** a smaller	
181		The website address of the dataset in the Example 3.40 is truncated in the middle of the line.
185		In the equation of the stage 1, the presence of the rightmost $\overline{\boldsymbol{IMF_1}}[\boldsymbol{n}]$ is pointless and extra.
185	$E_1(\boldsymbol{w^i}[\boldsymbol{n}]) \rightarrow E_1(\boldsymbol{x}[\boldsymbol{n}] + \boldsymbol{\varepsilon_0 w^i}[\boldsymbol{n}])$	In the equation and text of the stage 3, the input of the $\boldsymbol{E_1}$ shouldn't be changed, to have a consistent notation with upper iterations?
185	$E_k(\boldsymbol{w^i}[\boldsymbol{n}]) \rightarrow E_k(\boldsymbol{x}[\boldsymbol{n}] + \boldsymbol{\varepsilon_0 w^i}[\boldsymbol{n}])$	In text of the stage 5, input of the $\boldsymbol{E_k}$ shouldn't be changed?
185	$\widetilde{IMF_1}[n] \rightarrow \widetilde{IMF_k}[n]$	In Eq. 3.104, the subindex of IMF shouldn't change to k from 1?

185	$k = 2; \ldots; K \rightarrow k = 2, \ldots, K$	In Eq. 3.104, semicolon to comma.
185		**I** and **K** in stages 1 and 4 respectively do not need to be in bold face.
192	application **dela** notion → application **de la** notion	
197, & 198		The first line in the Example 4.4, 4.5, 4.6 has been mistakenly cut in the middle of the line.
199	the generalization ability of a subset of features **are** required to be estimated → the generalization ability of a subset of features **is** required to be estimated	
199	to find the basis along which → to find the basis **vectors** along which	
200	(Kutlu & Kuntalp, 2012) (Mendel, 1991) → (Kutlu & Kuntalp, 2012; Mendel, 1991)	One pair of parentheses is enough for the references in the first paragraph, instead of two attached pair.
200	Eq. (2.16) → Eq. (4.6)	In paragraph after Eq. 4.6, the two repetitions of the statement Eq. (2.16) should change to Eq. (4.6).
200	Ratio of the **absolute mean** values → Ratio of the **mean absolute** values	
200	$\sqrt{\frac{1}{M}\sum_{j=1}^{M} \boldsymbol{y_j^2}} \rightarrow \sqrt{\frac{1}{M}\sum_{j=1}^{M} \left\|\boldsymbol{y_j}\right\|^2}$	In the second class of statistical features, i.e., average power, the rms() Matlab function has been used in the related examples, so the corresponding formula needs to be the same as the definition of the rms() function.
231		There are extra blank lines in the Example 4.12.
260		There should be no $x(n)$ into the Eq. 4.9.
267	$\boldsymbol{x_j} \rightarrow \boldsymbol{x_n}$	In paragraph before Eq. 4.10, in the definition of X, the last element should be $\boldsymbol{x_n}$, instead of $\boldsymbol{x_j}$ considering Eq. 4.10?
267	$\boldsymbol{Pk} \rightarrow \boldsymbol{P_k}$	In Eq. 4.10
267	$a_n x_{kn} \rightarrow a_{kn} x_n$	In Eq. 4.10
268	The vector x can be → The vector $\boldsymbol{x}$ can be	
269		The sentence after the website address of fastica toolbox stating with 'and include it' needs to be at the same line as the website address.
279		In the paragraph before Fig. 5.2, it has been mentioned that the Fig. 5.2 shows the most popular measures of the performance derived from the confusion matrix, whereas the figure shows the confusion matrix itself, not the derived measures.
279		The cells of the table of Fig. 5.2 showing actual and predicted class are not merged correctly. They just need to cover two yes/no cells.
279	**False positive** rate (specificity) is → **True negative** rate (specificity) is	In the sentence before Eq. 5.4: specificity is equal to TNR or 1-FPR, not FPR.
279	**incorrectly** classified as **positive** → **correctly** classified as **negative**	
279	**FPR → TNR**	In Eq. 5.4.
279		Eq. 5.6 and the paragraph before that are explaining the measure recall which is another name for sensitivity, and can be merged with Eq. 5.3 and the related explanation.
280	These axes **makes** the ROC plane. → These axes **make** the ROC plane.	

281	$\boldsymbol{P_0 \rightarrow P_o}$	In Eqs. 5.8 and 5.9, and the sentence in between, the subindex of the observed agreement symbol seems to be zero instead of being o
281	$\boldsymbol{\mu_1}$, $\boldsymbol{\mu_2}$ and $\boldsymbol{\mu} \rightarrow \boldsymbol{\mu_1}$, $\boldsymbol{\mu_2}$ and $\boldsymbol{\mu}$	In the text before Eq. 5.13.
281		The $\boldsymbol{\omega}$ in Eq. 5.17 has not been defined.
285, 288, & 304	**Suppose you have Normal, Interictal and Ictal EEG data**	Not correct, this example uses ECG data, not EEG one.
312	using **discriminant analysis** → using **Naive Bayes Classifier**	
314	**(Mitchell, 1997), (Bishop, 2007)** → **(Mitchell, 1997; Bishop, 2007)**	
327	**(Rumelhart, Hinton, & Williams, 1986).(Alpaydin, 2014)** → **(Rumelhart, Hinton, & Williams, 1986; Alpaydin, 2014).**	
329		In Fig. 5.3 top left, the results are obtained at epoch **52**, while the corresponding GUI in Fig. 5.4 shows epoch **107** which is not consistent.
332	labels from 1 to **3**. → labels from 1 to **2**.	
332	in a **3-by-300** matrix → in a **2-by-2000** matrix	
338	from 1 to **3**. → from 1 to **5**.	
338	**3-by-300** matrix → **5-by-1500** matrix	
339, 345, 350, 361, & 371		In Figs. **5.11, 5.15, 5.19, 5.23,** and **5.27** top left, the results are obtained at epoch **107, 124, 177, 111,** and **23** while the corresponding GUI in Figs. **5.12, 5.16, 5.20, 5.24,** and **5.28** show epoch **128, 58, 43, 26,** and **48** which are not consistent.
345		In Fig. 5.15 top left, the results are obtained at epoch **124**, while the corresponding GUI in Fig. 5.16 shows epoch **58** which is not consistent.
414	contains **300** elements → contains **1500** elements	
414	from 1 to **3**. → from 1 to **5**.	
414	**3-by-300** matrix → **5-by-1500** matrix	

Conventionally, the continuous and discrete signals are represented by () and [], respectively, which has not been considered throughout the text.

- continuous signal: x(t)
- discrete signal: x[n]