P260.3 Working Group
Minutes of December 12, 2023 from 10 AM to 12 PM PDT
Web Teleconference Meeting

1. Call to Order
Call to order at 10:15 a.m. (PST).

2. Role Call of Attendees

Last, First Name	Affiliation	Member Status Voting (VM) Non-Voting (NVM)	Present
Curey, Randy (Chair)	Northrop Grumman	VM	Yes
Balma, Peter	Retired, Self	VM	No
Brown, Richard	NPL	VM	Yes
Edwards, Doug (Secretary)	Siemens	VM	Yes
Flowers, Keith	Siemens	VM	Yes
Shirley, Eric	NIST	VM	Yes
Webb, John	ABB	VM	Yes
Sullivan, Paul	DuPont	NVM	No

3. Determination of Quorum
Quorum was met and maintained through meeting.

4. Approval of Agenda
No objections. Agenda was approved by acclamation.

5. Approval of Previous Meeting Minutes
P260.3 WG Minutes (2023-12-12.R1) No objections. Minutes were approved by acclamation.

6. Call for Patents / Copyright
- Chair reminded all of the IEEE-SA Patent policy.
- Chair reminded all of the IEEE-SA Copyright policy.
- No Patent or Copyright issues reported.

7. Participant behavior
- Chair reminded all of the IEEE Behavior – Individual Method principles.

8. Chair's Remarks
Sorry for issues getting WebEx started. Have had "day job" conflicts.

9. Continue review of draft – creating D08 draft.

a) Starting Point – Table 11.5.1 Algebraic functions.

b) 11.5.1.8 Input is that symbol does not have the top of the bracket.
Note: Search to find this symbol without the top of the brackets of [&].

$$\lfloor X \rfloor$$

There might also add a "ceiling" function with the upper bracket tab without the lower bracket tab.

$\lceil x \rceil$

Will also need to update D07, 11.5.1.9 example.

c) 11.5.1.10 & 11.5.1.11: Keeping both entries.

d) 11.5.1.12 & 11.5.1.13: Keeping both entries.

e) 11.5.1.14: Revised to use Unconditional equality. $\equiv$

f) 11.5.1.15: Corrected bar over the $0.0\overline{27}$

g) 11.5.1.18: Combinations – Change lead variable from P to C.

$$C(n, m) \equiv \frac{P(n, m)}{m!} \equiv \frac{n!}{(n - m)!\, m!}$$

h) 11.5.1.19: Reordered to match order of descriptions above.

binomial coefficient; generating function:

$$\binom{n}{m} \equiv C(n, m); \ (1 + x)^n \equiv \sum_{m=0}^{n} \binom{n}{m} x^m$$

i) 11.5.1.19: Cross-reference corrected to be to 11.5.1.18.

Elementary Transcendental Functions

j) 11.5.2.1.2 – The Sign or Symbol corrected to be without the subscript b.

Item Number	Sign or Symbol	Application
11.5.2.1.1	exp	exp x
11.5.2.1.2	log	$\log_b x$
11.5.2.1.3	lb	lb x
11.5.2.1.4	lg	lg x
11.5.2.1.5	ln	ln x

k) 11.5.2.1.5 Added closing parenthesis. This is mistake from previous document.

natural (Napierian) logarithm of x: $\log_e x$;
$\ln_n x \triangleq \ln(\ln_{n-1}x)$, where $\ln_0 x \triangleq x$

l) ctn vs cot 11.5.2.1.4 "lg": Decision – To remove or keep as is – the entry for "lg"?
Decision: Keep as there are other standards with references to "lg".

m) 11.5.2.2.4 & 11.5.2.2.13, & 11.5.2.2.14 Instead of symbol "ctn", more common to see "cot".
➔ For future consideration.
Research is that ISO 80000-2:2019 references use of "cot", do not use "ctg", and "ctn" is NOT found.

n) 11.5.2.2.15 & 11.5.2.2.17 arcsec: Less than equal to changed to Greater than equal to.

| 11.5.2.2.15 | arcsec | arcsec q | angle whose secant is q $(q^2 \geq 1)$ |
| 11.5.2.2.17 | arccsc | arccsc q | angle whose cosecant is q $(q^2 \geq 1)$ |

o) 11.5.2.2.20, .21, .22, .23: vers, covrs, exsec, hav
Decision: Remove terms on basis that terms are considered deprecated and are not included in ISO 80000-2:2019.

Additional comment, the list is quite incomplete such as not having havercosine.

Proposal: Will add to the Introduction to include statement of, "The functions versed sine, coversed sine, exsecant and haversine have largely gone out of use and have been omitted."

p) Start back at D8 section 11.5.2.3 Hyperbolic functions

10. Next Meeting – Via Doodle Poll – in May 2024.

11. Adjournment

Meeting adjourned at 11:57 p.m. (PST).

Reported by,
Doug Edwards
P260.3 Secretary